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FILE COVERS 1907 - 9 Jun 2008  VOL 148 ISS 24
FILE LAST UPDATED: 8 Jun 2008  (20080608/ED)

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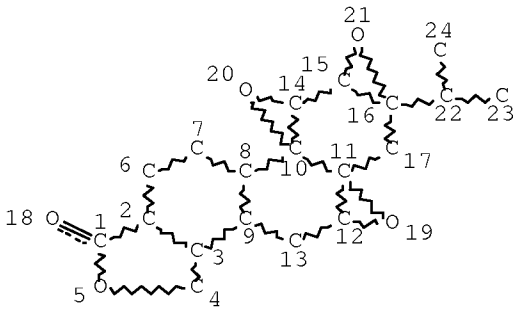

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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  24

STEREO ATTRIBUTES: NONE
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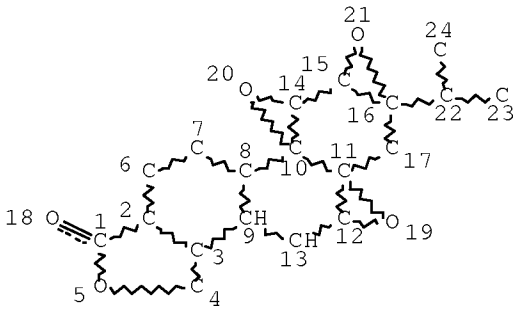

NODE ATTRIBUTES:
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STEREO ATTRIBUTES: NONE
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L7 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:1146464 HCAPLUS Full-text
DOCUMENT NUMBER: 147:433616
TITLE: Antitumor compositions containing triptolide derivatives
INVENTOR(S): Li, Yuanchao; Lou, Liguang; Deng, Gang; Xu, Yongping; Feng, Huijin; Tang, Weidong
PATENT ASSIGNEE(S): Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: PCT Int. Appl., 29pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2007112648	A1	20071011	WO 2007-CN586	20070216

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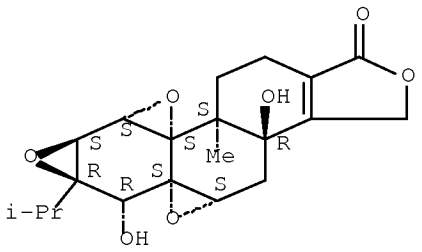
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,

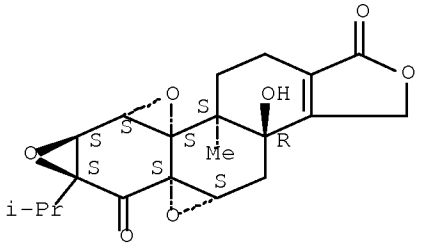
KG, KZ, MD, RU, TJ, TM
CN 101049300 A 20071010 CN 2006-10025439 20060404
PRIORITY APPLN. INFO.: CN 2006-10025439 A 20060404
OTHER SOURCE(S): MARPAT 147:433616
AB The antitumor composition comprises effective dosage of triptolide derivs., their optical isomers or their pharmaceutical acceptable salts, and conventional pharmaceutical adjuvant. The high efficient and harmfulless triptolide derivs. selected by the present invention can be used to treat tumor diseases. The medicinal composition of present invention can be produced to the dosage forms suitable for absorption and utilization by tissue and organ of warm-hearted animals.
IT 583028-68-6
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor compns. containing triptolide derivs.)
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 571176-87-9 721883-31-4 721883-32-5 721883-33-6 721883-34-7 721883-35-8 721883-36-9 721883-37-0 721883-38-1 721883-39-2 721883-40-5
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antitumor compns. containing triptolide derivs.)
RN 571176-87-9 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-3b-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



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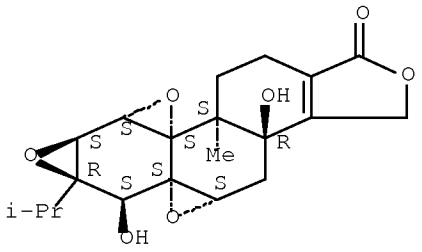
Absolute stereochemistry.



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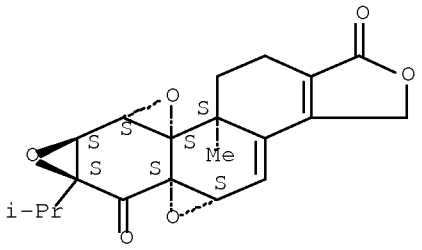
Absolute stereochemistry.



RN 721883-33-6 HCAPLUS
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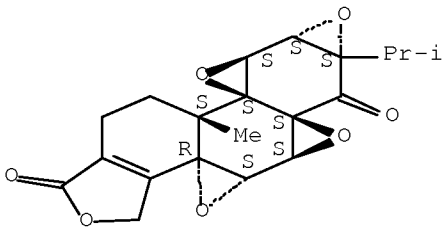
Absolute stereochemistry.



RN 721883-34-7 HCAPLUS
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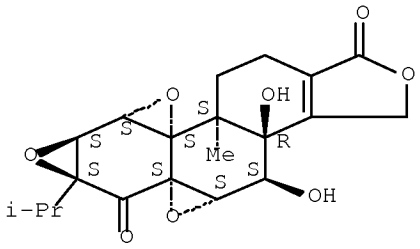
3b,4,4a,7a,7b,8b,9,10-octahydro-3b,4-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



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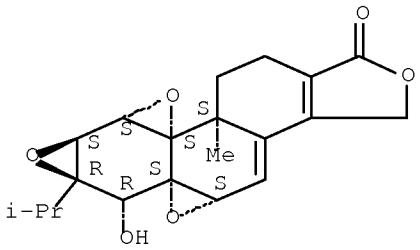
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 4a,6,6a,7a,7b,8b,9,10-octahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



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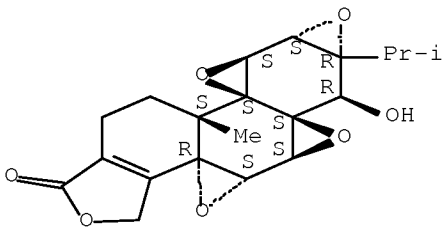
Absolute stereochemistry.



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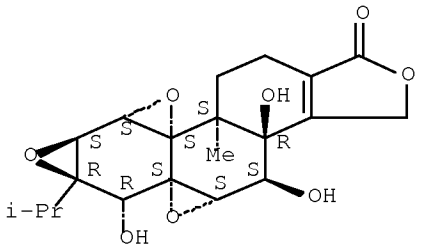
Absolute stereochemistry.



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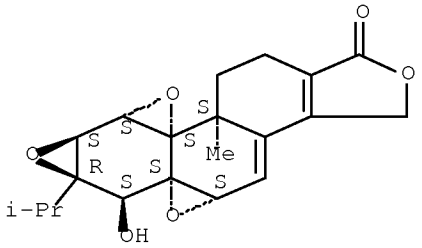
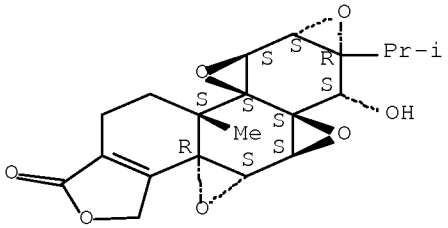
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 4a,6,6a,7a,7b,8b,9,10-octahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (4aS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



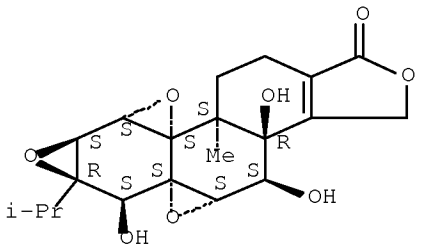
RN 721883-39-2 HCAPLUS
CN 1H-Tetrakisoxireno[4b,5:6,7:8a,9:10,10a]phenanthro[1,2-c]furan-1-one, 3,4a,4b,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,4bS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 721883-40-5 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,4,6-trihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

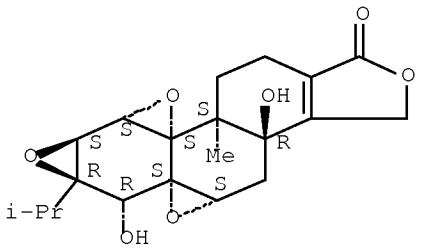
L7 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:459438 HCAPLUS Full-text
DOCUMENT NUMBER: 146:475120
TITLE: (5R)-5-hydroxytriptolide (LLDT-8) protects against bleomycin-induced lung fibrosis in mice
AUTHOR(S): Ren, Yong-xin; Zhou, Ru; Tang, Wei; Wang, Wen-hai; Li, Yuan-chao; Yang, Yi-fu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2007), 28(4), 518-525
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: To study the protective effects of a triptolide-derived, novel compound, (5R)-5-hydroxytriptolide (LLDT-8), on bleomycin-induced lung fibrosis. Methods: C57BL/6 mice received an intratracheal injection of bleomycin and were then treated with LLDT-8 (0.5, 1, 2 mg/kg, i.p.) once daily for 7 or 14 consecutive days. The body weight loss and lung index augmentation was observed; the inflammatory response including differential cells counts of neutrophils, macrophages, and lymphocytes in the bronchoalveolar lavage fluid (BALF), superoxide dismutase (SOD), and malondialdehyde (MDA) level in the lung homogenates was detected, and the fibrosis extent was evaluated by hydroxyproline content and histopathol. changes in the lungs. In addition, the pro-inflammatory and pro-fibrotic cytokines, tumor necrosis factor-α (TNF-α), interleukin-4 (IL-4), and transforming growth factor-α (TGF-α) production in the lungs were measured. Results: LLDT-8 alleviated the body weight loss and lung index increase caused by bleomycin, reduced neutrophils and lymphocytes in the BALF, promoted SOD activity, decreased MDA production, and inhibited the hydroxyproline level and the amelioration of lung tissue histol. damage. Moreover, LLDT-8 suppressed TNF-α, IL-4, and TGF-β production in the lung homogenates. Conclusion: LLDT-8 showed protective effects against bleomycin-induced lung fibrosis, and the results suggested the potential role of LLDT-8 in the treatment of this disease.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide (LLDT-8) protects against bleomycin-induced lung fibrosis in mice)
RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:1335374 HCAPLUS Full-text
DOCUMENT NUMBER: 146:134993
TITLE: (5R)-5-hydroxytriptolide inhibits IFN-γ-related signaling
AUTHOR(S): Zhou, Ru; Wang, Jun-xia; Tang, Wei; He, Pei-lan; Yang, Yi-fu; Li, Yuan-chao; Li, Xiao-yu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2006), 27(12), 1616-1621
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: (5R)-5-hydroxytriptolide (LLDT-8) displayed anti-arthritis and anti-allogenic transplantation rejection activities in our previous studies. Here, we aim to further clarify the effect of LLDT-8 on the pro-inflammatory cytokine IFN-γ. Methods: T cells were activated with anti-CD3 antibody or Con A (ConA). The expression of cell surface mols. was detected with flow cytometry. Cells were labeled with carboxyfluorescein diacetate succinimidyl ester (CFSE) to test cell division. IFN-γ production was determined by ELISA. Cell proliferation was evaluated by [3H]-thymidine uptake. Mice were immunized with ovalbumin to assess the in vivo immune response. RT-PCR and Real-time PCR were applied to determine the mRNA expression. The protein phosphorylation levels were detected by Western immunoblot assay. Results: LLDT-8 at 100 nmol/L did not change the CD25, CD69, and CD154 expressions in anti-CD3-stimulated T cells. LLDT-8 markedly blocked the cell division of CD4 and CD8 T cells after ConA stimulation. LLDT-8 inhibited T cell-derived IFN-γ production Moreover, LLDT-8 suppressed the ovalbumin-specific T cell proliferation and IFN-γ generation. In anti-CD3-activated T cells, LLDT-8 abrogated the mRNA expression of signal transducer and activator of transcription1 (STAT1), T-box transcription factor, IL-12 receptor β2, STAT4, and interferon regulatory factor 1 in the IFN-γ expression pathway. Western blot anal. showed that LLDT-8 blocked the phosphorylation levels of

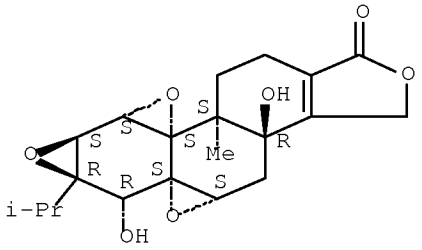
extracellular signal-regulated kinase, stress-activated protein kinase (SAPK)/c-Jun N-terminal kinase, and p38 mitogen-activated protein kinase in anti-CD3 plus anti-CD28-activated T cells. In addition, LLDT-8 reduced the transcripts of macrophage inflammatory protein (Mip)-1α, Mip-1β, regulated upon activation normally T-cell expressed and secreted, inducible protein-10, IFN-inducible T cell a chemoattractant, and monokine induced by IFN-γ in IFN-γ-stimulated murine macrophage cell line Raw 264.7 cells. Conclusion: LLDT-8 was a potential inhibitor for IFN-γ-associated signaling.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide inhibits IFN-γ-related signaling in relation to immunosuppressant activity)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:677604 HCAPLUS Full-text
DOCUMENT NUMBER: 145:117447
TITLE: Use of polycystin-2 (PKD2) agonists for the treatment of conditions caused by calcium abnormalities
INVENTOR(S): Crews, Craig M.; Quinn, Stephanie J.
PATENT ASSIGNEE(S): Yale University, USA
SOURCE: PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006073572	A2	20060713	WO 2005-US41476	20051115
WO 2006073572	A3	20060831		

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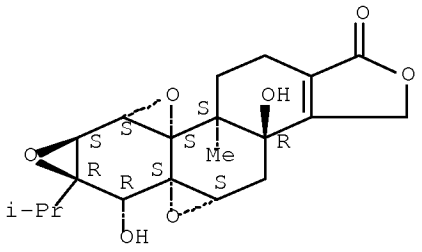
AU 2005323363	A1	20060713	AU 2005-323363	20051115
CA 2587263	A1	20060713	CA 2005-2587263	20051115
EP 1814539	A2	20070808	EP 2005-856964	20051115
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20080063601	A1	20080313	US 2007-716980	20070312
PRIORITY APPLN. INFO.:			US 2004-627844P	P 20041115
			US 2005-707014P	P 20050809
			WO 2005-US41476	W 20051115
			WO 2006-US30671	A2 20060809

AB In certain aspects, the invention relates to use of PKD2 agonists, e.g. triptolide and triptolide derivs., to regulate calcium release. In other aspects, the invention relates to use of PKD2 agonists to treat or aid in the treatment of any condition in which a calcium channel, such as the gene product of PKD1 and/or PKD2, is mutated; calcium signaling is abnormal; or both.

IT 583028-68-6 819083-54-0
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(polycystin-2 agonists for treatment of conditions caused by calcium abnormalities)

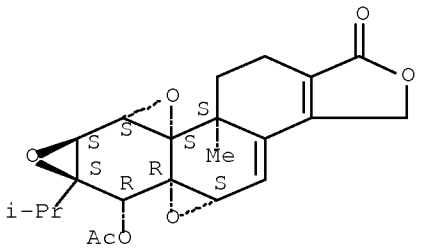
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 819083-54-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-4a,6,6a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:658523 HCAPLUS Full-text
DOCUMENT NUMBER: 145:137474
TITLE: (5R)-5-hydroxytriptolide attenuated collagen-induced arthritis in DBA/1 mice via suppressing interferon-β production and its related signaling
AUTHOR(S): Zhou, Ru; Tang, Wei; Ren, Yong-Xin; He, Pei-Lan; Zhang, Fan; Shi, Li-Ping; Fu, Yun-Feng; Li, Yuan-Chao; Ono, Shiro; Fujiwara, Hiromi; Yang, Yi-Fu; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 318(1), 35-44
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-Hydroxytriptolide (LLDT-8) displays strong immunosuppressive activities both in vitro and in vivo in our previous studies. This study aims to investigate whether LLDT-8 has antiarthritic potential in a murine model of type II bovine collagen (CII)-induced arthritis (CIA) and to show the mechanism(s) of LLDT-8 action. DBA/1 mice were immunized with CII to induce arthritis and administered with LLDT-8. The severity of arthritis was evaluated according to the clin. score and joint damage. The effects of LLDT-8 on immune responses were determined by measurement of serum antibody levels, lymphocyte proliferation assay, cytokine assay, nitric oxide (NO) production, arginase activity assays, fluorescence-activated cell sorting anal. of splenic Mac-1+ cells, as well as polymerase chain reaction anal. for interferon-γ (IFN-γ)-related gene expression. We showed that LLDT-8 treatment significantly reduced the incidence and severity of CIA. The preventive and therapeutic effects of LLDT-8 are associated with (1) reduction of serum anti-CII IgG, IgG2a, and IgG1 levels; (2) inhibition of CII-specific lymphocyte proliferation, IFN-γ and interleukin-2 production; (3) blockade of gene expressions in IFN-γ signaling, including IFN-γ production pathways [signal transducer and activator of transcription (STAT) 1, T-box transcription factor, interleukin 12Rβ2, and STAT4] and IFN-γ-induced chemokine transcription [macrophage inflammatory protein (Mip)-1α, Mip-1β, regulated on activation normally T cell expressed and secreted, and inducible protein 10]; and (4) retardation of the abnormal increase of NO via IFN-γ/STAT1/interferon

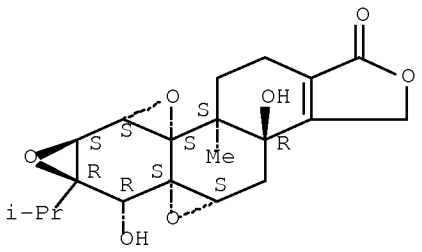
regulatory factor 1/inducible nitric-oxide synthase pathway and arginase activity. Moreover, the mRNA transcription of chemokine receptors was also suppressed [including C-C chemokine receptor (CCR) 1, CCR5, and C-X-C chemokine receptor 3]. In conclusion, our data suggest that the antiarthritic effect of LLDT-8 is closely related to the blockade of IFN-γ signaling. LLDT-8 may have a therapeutic value in the treatment of rheumatoid arthritis.

IT 583028-68-6, LLDT 8
RL: DMA (Drug mechanism of action); NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)
(hydroxytriptolide attenuated collagen-induced arthritis via suppressing interferon-β signaling)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:487563 HCAPLUS Full-text

DOCUMENT NUMBER: 145:202303

TITLE: (5R)-5-Hydroxytriptolide (LLDT-8), a novel triptolide derivative, prevents experimental autoimmune encephalomyelitis via inhibiting T cell activation

AUTHOR(S): Fu, Yun-Feng; Zhu, Yi-Na; Ni, Jia; Zhong, Xiang-Gen; Tang, Wei; Zhou, Ru; Zhou, Yu; Dong, Jia-Rong; He, Pei-Lan; Wan, Hua; Li, Yuan-Chao; Yang, Yi-Fu; Zuo, Jian-Ping

CORPORATE SOURCE: Laboratories of Immunopharmacology and Medicinal Chemistry, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China

SOURCE: Journal of Neuroimmunology (2006), 175(1-2), 142-151
CODEN: JNRIDW; ISSN: 0165-5728

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A novel triptolide derivative (5R)-5-hydroxytriptolide (LLDT-8) was shown to have potent immunosuppressive activities. Here LLDT-8 was evaluated in exptl. autoimmune encephalomyelitis (EAE), the model of multiple sclerosis (MS). LLDT-8 reduced the incidence and severity of EAE, which was associated with

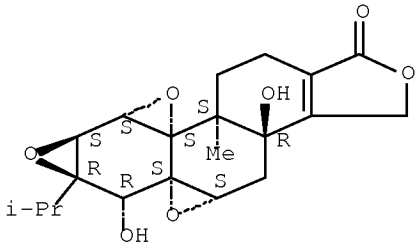
the inhibition of the MOG 35-55 lymphocyte recall response, anti-MOG 35-55 T cell responses, interleukin (IL)-2 and interferon (IFN)-γ production In vitro, LLDT-8 inhibited primary T cells proliferation, division, IL-2 and IFN-γ production stimulated with anti-CD3/28. These findings highlight the fact that LLDT-8 prevents EAE by suppressing T cell proliferation and activation, with a potential for treatment of MS.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(a novel triptolide derivative, prevents exptl. autoimmune encephalomyelitis via inhibiting T cell activation)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:403349 HCAPLUS Full-text

DOCUMENT NUMBER: 144:445319

TITLE: Preventive effects of (5R)-5-hydroxytriptolide on concanavalin A-induced hepatitis

AUTHOR(S): Zhou, Ru; Tang, Wei; Ren, Yong-Xin; He, Pei-Lan; Yang, Yi-Fu; Li, Yuan-Chao; Zuo, Jian-Ping

CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China

SOURCE: European Journal of Pharmacology (2006), 537(1-3), 181-189
CODEN: EJPHAZ; ISSN: 0014-2999

PUBLISHER: Elsevier B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB (5R)-5-hydroxytriptolide (LLDT-8) exhibits strong immunosuppressive activities in vitro and in vivo. Here, we investigated the effects of LLDT-8 on Con A-induced hepatitis. Liver damage was evaluated by serum alanine transaminase (ALT) level and liver histol. The effects of LLDT-8 were determined by measurement of serum cytokines, lymphocyte proliferation assay, flow cytometry anal. of splenic T cell percentage and apoptosis, reverse-transcription polymerase chain reaction (RT-PCR) anal. for gene transcriptions. In LLDT-8-

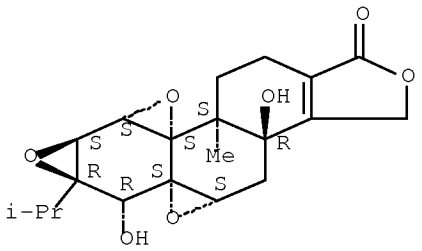
treated mice, serum ALT level and histol. damage were markedly attenuated. The beneficial effect of LLDT-8 was closely associated with (i) reduction of serum tumor necrosis factor-α, interferon-γ (IFN-γ), interleukin-2, interleukin-12, and interleukin-6 levels; (ii) elimination of activated T cells by increasing proapoptotic genes signal transducer and activator of transcription 1 (STAT1) and interferon regulatory factor-1 (IRF-1) expression in spleens; (iii) blockade of mRNA expressions for chemokines (monokine induced by IFN-γ, Mig; IFN-γ-inducible protein-10, IP-10; IFN-inducible T cell-α chemoattractant, I-TAC), vascular adhesion mol.-1 (VCAM-1), and chemokine receptors (C-C chemokine receptor 1, CCR1; C-C chemokine receptor 5, CCR5; C-X-C chemokine receptor 3, CXCR3) in livers. These results suggested the therapeutic potential of LLDT-8 in IFN-γ/STAT1/IRF-1 signaling- and inflammatory cytokines-mediated immune disorders.

IT 583028-68-6, (5R)-5-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(preventive effects of (5R)-5-hydroxytriptolide on Con A-induced hepatitis)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:290233 HCAPLUS Full-text

DOCUMENT NUMBER: 145:284460

TITLE: Suppression of (5R)-5-hydroxytriptolide (LLDT-8) on Allograft Rejection in Full MHC-Mismatched Mouse Cardiac Transplantation

AUTHOR(S): Tang, Wei; Zhou, Ru; Yang, Yang; Li, Yuan-chao; Yang, Yi-fu; Zuo, Jian-ping

CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China

SOURCE: Transplantation (2006), 81(6), 927-933
CODEN: TRPLAU; ISSN: 0041-1337

PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Background: (5R)-5-hydroxytriptolide (LLDT-8) is a new compound derived from triptolide, which is the major immunosuppressive fraction of Tripterygium

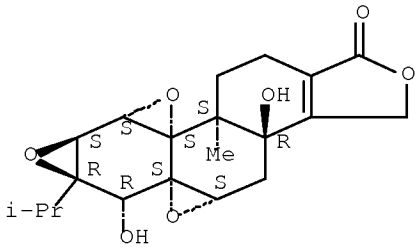
wilfordii Hook. F (TWHF). Studies in vitro and in vivo have demonstrated that LLDT-8 had potent immunosuppressive activities. Here we tested LLDT-8 in major histocompatibility complex (MHC)-mismatched cardiac transplantation and investigated the mechanisms underlying the prevention of transplant rejection. Methods: LLDT-8 was administered orally to recipients in Balb/c to C57BL/6 murine cardiac transplantation model. Allograft survival after transplantation was recorded in recipients. The T cell immunity and cytokine production were observed Histol. anal. was performed. The chemokine and its receptor were analyzed by reverse transcriptase-polymerase chain reaction on cardiac graft RNA. Results: LLDT-8 administered orally significantly induced the survival prolongation of allogeneic cardiac graft. Histol. results showed that LLDT-8 well preserved myocardium and significantly reduced infiltration of the graft with inflammatory cells. LLDT-8 decreased IL-2 production in recipient splenocytes stimulated by Con A (ConA) ex vivo. LLDT-8 significantly inhibited the immunoreactivity of recipient to specific donor alloantigens, but preserved immunity to third-party alloantigens and mitogen. However, the flow cytometry anal. of the proportion of CD4, CD8 T cell subgroup in recipient spleens showed LLDT-8 had a normalizing effect on the splenic lymphocytes population. LLDT-8 decreased CC chemokine receptor 5 (CCR5) and their ligands macrophage inflammatory protein 1 alpha (MIP-1α) and beta (MIP-1β) mRNA expressions in allografts. Conclusion: The results outline the great potential of LLDT-8 as a therapeutic tool in transplant rejection.

IT 583028-68-6, 5-α-Hydroxytriptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide LLDT-8 treatment prolonged allograft survival and reduced chemokine and its receptor in full MHC-mismatched mouse cardiac transplantation model)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 49 THERE ARE 49 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:103747 HCAPLUS Full-text
DOCUMENT NUMBER: 144:164242
TITLE: Method for treatment of inflammatory disorders using triptolide compounds
INVENTOR(S): Fidler, John M.; Musser, John H.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 21 pp.

CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

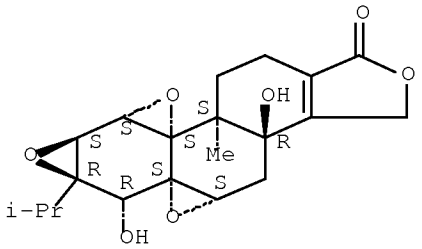
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006012204	A2	20060202	WO 2005-US22247	20050623
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070244080	A1	20071018	US 2007-629747	20070705
PRIORITY APPLN. INFO.:			US 2004-583295P P	20040625
			WO 2005-US22247 W	20050623

AB Inflammatory disorders, including obliterative airway disease, renal fibrosis, diabetic nephropathy, and liver fibrosis are treated with immunosuppressive triptolide compds., in particular triptolide compds. effective to inhibit TGF-β production in a patient afflicted with such a disorder. Preparation of triptolide derivs. is included.

IT 583028-68-6P 819083-54-0P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(triptolide compds. for treatment of inflammatory disorders)

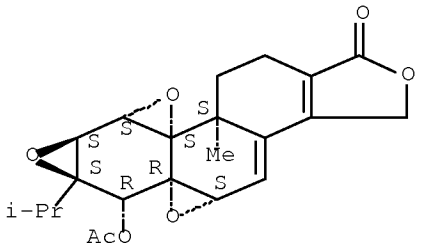
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 819083-54-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-4a,6,6a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:17384 HCAPLUS Full-text
DOCUMENT NUMBER: 144:80860
TITLE: Inhibition of inducible nitric-oxide synthase expression by (5R)-5-hydroxytriptolide in interferon-γ- and bacterial lipopolysaccharide-stimulated macrophages
AUTHOR(S): Zhou, Ru; Zheng, Shen-Xi; Tang, Wei; He, Pei-Lan; Li, Xiao-Yu; Yang, Yi-Fu; Li, Yuan-Chao; Geng, Jian-Guo; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratories of Immunopharmacology and Chemistry, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(1), 121-128
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

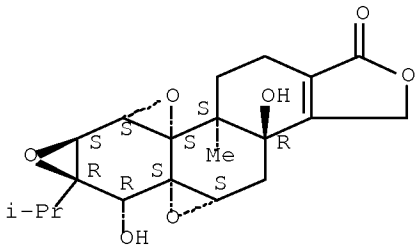
AB (5R)-5-Hydroxytriptolide (LLDT-8) is a novel analog of triptolide that has antiarthritic, hepatoprotective, and antiallogenic transplantation- rejective effects. In the present study, we report that LLDT-8 inhibited nitric oxide (NO) production and inducible nitric-oxide synthase (iNOS) expression in macrophages. LLDT-8 significantly attenuated NO production, in a dose-dependent manner, in primary peritoneal macrophages and a macrophage cell line of Raw 264.7 cells following stimulation with interferon (IFN)-γ, lipopolysaccharide (LPS), and IFN-γ plus LPS. It also reduced the production of tumor necrosis factor-α from LPS-stimulated Raw 264.7 cells. To further elucidate the mechanism responsible for the inhibition of NO, we examined the effect of LLDT-8 on IFN-γ and LPS-induced iNOS expression. Indeed, LLDT-8 prevented NO generation by inhibiting iNOS expression at mRNA level and protein level, rather than by interfering its enzymic activity. In IFN-γ-stimulated Raw 264.7 cells, LLDT-8 suppressed the gene transcription of signal transducer and activator of transcription 1α and interferon regulatory factor (IRF)-1, but it displayed no apparent effect on IFN-γ receptor level on cell surface. After LPS challenge, LLDT-8 further abrogated the expression of LPS receptor complex, including CD14, Toll-like receptor 4, and myeloid differentiation protein-2; decreased the LPS-induced phosphorylation of stress-activated protein kinase/c-Jun NH2-terminal kinase, extracellular signal-regulated kinase 1/2, and p38 mitogen-activated protein kinase (MAPK);

retarded the degradation of IκBα; and ameliorated the DNA binding activity of nuclear factor-κB (NF-κB) to nuclear proteins that accounts for transcriptional regulation of iNOS. Taken together, these results suggest that LLDT-8 reduces NO production and iNOS expression by inhibiting IFN-γ-triggered IRF-1 expression and LPS-triggered MAPK phosphorylation and NF-κB activation.

IT 583028-68-6
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(inhibition of inducible nitric-oxide synthase expression by (5R)-5-hydroxytriptolide in interferon-γ- and bacterial lipopolysaccharide-stimulated macrophages)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1208878 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381582
TITLE: Prevention of graft-versus-host disease by a novel immunosuppressant, (5R)-5-hydroxytriptolide (LLDT-8), through expansion of regulatory T cells
AUTHOR(S): Tang, Wei; Yang, Yang; Zhang, Fan; Li, Yuan-chao; Zhou, Ru; Wang, Jun-xia; Zhu, Yi-na; Li, Xiao-yu; Yang, Yi-fu; Zuo, Jian-ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State key laboratory of drug research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: International Immunopharmacology (2005), 5(13-14), 1904-1913
CODEN: IINMBA; ISSN: 1567-5769
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

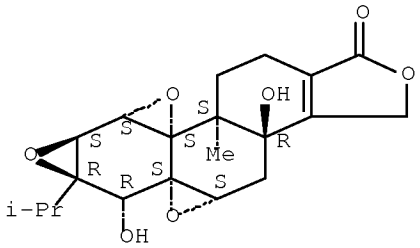
AB (5R)-5-hydroxytriptolide (LLDT-8) is a new compound derived from triptolide, which is the major immunosuppressive fraction of Tripterygium wilfordii Hook. F (TWHF). In this study, we demonstrated that administration of LLDT-8 (1

g/kg/day, p.o.) effectively prevented weight loss and death induced by allo-BMT (BLAB/c, H-2d to C57BL/6, H-2b), and extended survival in allo-BMT model of aGVHD. Following days 7 to 28 after allo-BMT, the allogeneic graft survived by increasing the number of engrafted cells (H-2d) in spleens of recipient mice with LLDT-8 treatment. To construe the immunosuppressive effects of LLDT-8, the splenocytes (H-2d) of LLDT-8 treated recipients (H-2b) were tested for the proliferative responses to donor antigen (H-2d), host antigen (H-2b) and mitogen (ConA) stimulations, resp., the results indicated that LLDT-8 induced the T cells' unresponsiveness to donor and host antigens, while still maintaining response to ConA; Compared with the vehicle group of GVHD mice, administration of LLDT-8 significantly inhibited T cells to produce IFN-γ with or without host antigen or ConA stimulation. Further studies indicated LLDT-8 had a normalizing effect on the ratio of CD4+/CD8+ T cells, and increased CD4+CD25+ T regulatory cells with the Foxp3 expression in splenocytes from LLDT-8 treated mice. The results outline the great potential of LLDT-8 as a therapeutic tool to induce suppression in GVHD.

IT 583028-68-6, LLDT 8
RL: DMA (Drug mechanism of action); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prevention of graft-vs.-host disease by a novel immunosuppressant, (5R)-5-hydroxytriptolide (LLDT-8), through expansion of regulatory T cells)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1208877 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381581
TITLE: (5R)-5-hydroxytriptolide (LLDT-8), a novel triptolide analog mediates immunosuppressive effects in vitro and in vivo
AUTHOR(S): Zhou, Ru; Zhang, Fan; He, Pei-Lan; Zhou, Wen-Liang; Wu, Qing-Li; Xu, Jian-Yi; Zhou, Yu; Tang, Wei; Li, Xiao-Yu; Yang, Yi-Fu; Li, Yuan-Chao; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China

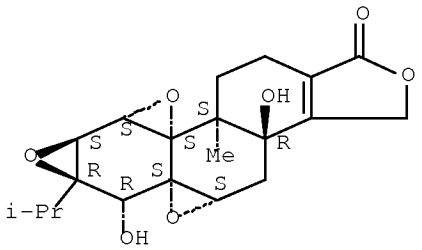
SOURCE: International Immunopharmacology (2005), 5(13-14), 1895-1903
CODEN: IINMBA; ISSN: 1567-5769
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB (5R)-5-hydroxytriptolide (LLDT-8) showed low cytotoxicity and relative high immunosuppressive activities as compared with its parent compound triptolide in vitro. The CC50 values of triptolide and LLDT-8 were 2.1±0.3 and 256.6±73.8 nM, resp. LLDT-8 significantly inhibited the proliferation of splenocytes induced by Con A (ConA), lipopolysaccharide (LPS), or mixed lymphocyte reaction (MLR), and the IC50 values were 131.7±32.4, 171.5±17.3, and 38.8±5.1 nM, resp. LLDT-8 (25, 50, 100 nM) dose-dependently reduced the production of Th1 type cytokines (IFN-γ, IL-2) and inflammatory cytokines (TNF-α, IL-6) in vitro. Administration of LLDT-8 (at the low dose of 0.4 μg/kg, i.p.; 40 μg/kg, p.o.) intensively suppressed 2,4-dinitrofluorobenzene (DNFB)-induced delayed type hypersensitivity (DTH) reactions. Treatment with LLDT-8 (40 μg/kg, i.p. and p.o.) also markedly inhibited the sheep red blood cell (SRBC)-induced antibody production in BLAB/c mice. Most importantly, comparing with triptolide, LLDT-8 significantly reduced toxicity, with a 122-fold lower cytotoxicity in vitro and 10-fold lower acute toxicity in vivo. The results suggested that LLDT-8 had immunosuppressive activities in both cellular and humoral immune responses. LLDT-8 might be a potential therapeutic agent for immune-related diseases.

IT 583028-68-6
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
((5R)-5-hydroxytriptolide (LLDT-8), a novel triptolide analog mediates immunosuppressive effects in vitro and in vivo)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:611979 HCAPLUS Full-text
DOCUMENT NUMBER: 143:109774
TITLE: Triptolide 5,6-derivatives as immunomodulators and anticancer agents
INVENTOR(S): Dai, Dongcheng; Musser, John H.; Yuan, Hongwei
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA

SOURCE: PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005062913	A2	20050714	WO 2004-US43249	20041220
WO 2005062913	A3	20050909		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 20070249048	A1	20071025	US 2007-584114	20070521
PRIORITY APPLN. INFO.:			US 2003-532702P P	20031224
			WO 2004-US43249 W	20041220

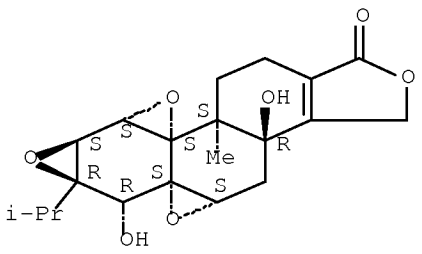
OTHER SOURCE(S): MARPAT 143:109774

AB Compds. useful as immunosuppressive, anti-inflammatory and anticancer agents and methods of their preparation and use are described. The compds. are analogs or derivs. of triptolide and related compds., modified at the 5- and/or 6-position relative to the naturally occurring compds. 5-α-Hydroxytriptolide (PG701), prepared from triptolide, induced apoptosis and inhibited IL-2 production in Jurkat cells.

IT 583028-68-6P, PG 701 819083-54-0P, PG 746
857348-70-0P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(triptolide 5,6-derivs. as immunomodulators and anticancer agents)

RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

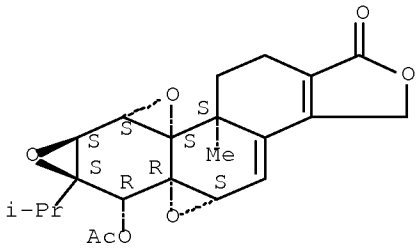
Absolute stereochemistry.



RN 819083-54-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one,

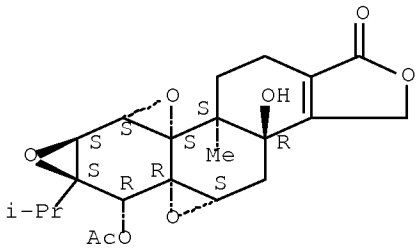
6-(acetyloxy)-4a,6,6a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



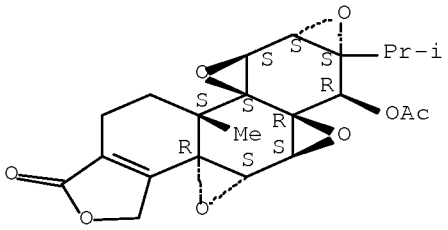
RN 857348-70-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



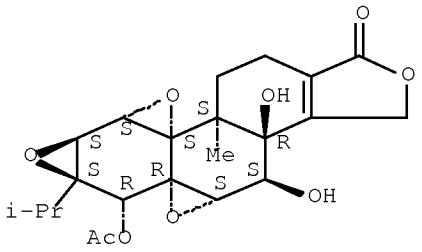
IT 857348-72-2P 857348-73-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(triptolide 5,6-derivs. as immunomodulators and anticancer agents)
RN 857348-72-2 HCAPLUS
CN 1H-Tetraoxireno[4b,5:6,7:8a,9:10,10a]phenanthro[2,1-c]furan-1-one, 6-(acetyloxy)-3,4a,4b,6,6a,7a,7b,8b,9,10-decahydro-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,4bS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 857348-73-3 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,4-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:216599 HCAPLUS Full-text
DOCUMENT NUMBER: 142:291368
TITLE: Method for treatment of severe acute respiratory syndrome (SARS) using triptolide compounds
INVENTOR(S): Fidler, John M.; Leu, Karen S.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 19 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

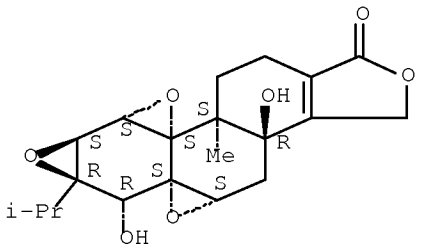
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005020887	A2	20050310	WO 2004-US20447	20040625
WO 2005020887	A3	20050428		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-483335P P 20030627
AB The use of triptolide compds. for treatment of SARS infection is disclosed. The compds. are effective to inhibit cytokine production and thereby reduce symptoms, particularly in the immune hyperactive phase of the disease. Triptolide suppressed production of proinflammatory cytokines such as interferon-γ, TNF-α, IL-1β, and IL-6 in activated human peripheral blood mononuclear cells. Triptolide derivs. and prodrugs were synthesized.
IT 583028-68-6P, PG 701
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

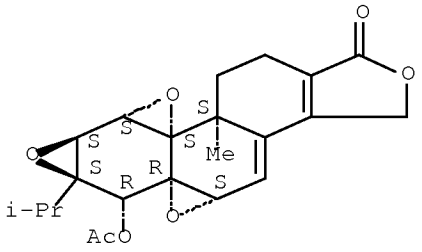
(Reactant or reagent)
(triptolide compds. for reducing cytokine production and treatment of immune hyperactive phase of severe acute respiratory syndrome)
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



IT 819083-54-0P, PG 746
RL: SPN (Synthetic preparation); PREP (Preparation)
(triptolide compds. for reducing cytokine production and treatment of immune hyperactive phase of severe acute respiratory syndrome)
RN 819083-54-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-4a,6,6a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:14206 HCAPLUS Full-text
DOCUMENT NUMBER: 142:86649
TITLE: Method for treatment of idiopathic pulmonary fibrosis using triptolide derivatives
INVENTOR(S): Fidler, John M.; Musser, John H.
PATENT ASSIGNEE(S): Pharmagenesis, Inc., USA
SOURCE: PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000291	A1	20050106	WO 2004-US20347	20040628
WO 2005000291	A8	20060119		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-483335P P 20030627

AB The invention relates to the use of immunosuppressive triptolide derivs. for the treatment of idiopathic pulmonary fibrosis (IPF).

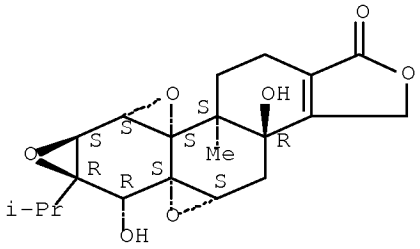
IT 583028-68-6 819083-54-0

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method for treatment of idiopathic pulmonary fibrosis using triptolide derivs.)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

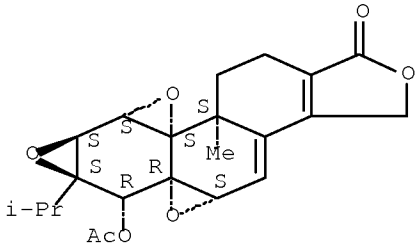
Absolute stereochemistry.



RN 819083-54-0 HCAPLUS

CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 6-(acetyloxy)-4a,6,6a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aR,6R,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.

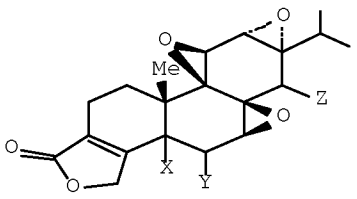


REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:566616 HCAPLUS Full-text
DOCUMENT NUMBER: 141:117119
TITLE: Synthesis, anti-inflammatory, immunosuppressive effects of Triptolide derivatives
INVENTOR(S): Li, Yuanchao; Zuo, Jianping; Zhang, Fan; Zhou, Ru; Ding, Jian
PATENT ASSIGNEE(S): Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Peop. Rep. China; Shanghai Pharmaceutical (Group) Co., Ltd.
SOURCE: PCT Int. Appl., 45 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2004058770	A1	20040715	WO 2003-CN95		20030128
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
CN 1511838	A	20040714	CN 2003-102976		20030123
AU 2003303388	A1	20040722	AU 2003-303388		20030128
US 20070197476	A1	20070823	US 2007-540908		20070129
PRIORITY APPLN. INFO.:			CN 2002-160524	A	20021227
			WO 2003-CN95	W	20030128

OTHER SOURCE(S): MARPAT 141:117119
GI



I

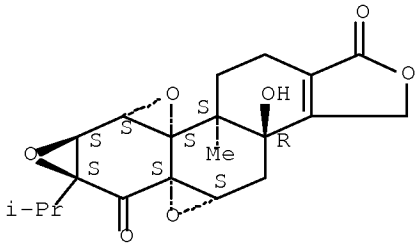
AB The invention discloses preparation of Triptolide derivs. of Formula I (wherein, C5 and C6 connect with each other by a C-C single bond or double bond; when C5 and C6 are connected with C-C single bond, X and Y represents independently hydrogen, oxygen, hydroxy, halogen, lower alkyloxy, lower alkylamino, mercapto, lower alkylthio, the group of formula -OCOR, -OSO2OR or -OPO(OH)2, each of which is attached to C5 and C6, R represents -(CH2)nCO2Na, -(CO2)nCO2K, or -(CH2)nCH3, wherein n = 1-6; Z represents hydrogen, oxygen, hydroxy, halogen, lower alkyloxy, lower alkylamino, mercapto, lower alkylthio, the group of formula -OCOR, -OSO2OR or -OPO(OH)2, each of which is linked at C14-position, R represents -(CH2)nCO2Na, -(CO2)nCO2K, or -(CH2)nCH3, wherein n = 1 - 6; wherein, the "__" linked with X, Y, and Z represents "(a) " or "(b)", provided that X and Y cannot both be hydrogen atom at the same time), their pharmaceutically salts and optical isomers , with the methods for their use as antiphlogistic agent, immunosuppressive agent or therapeutic agent for other related diseases.

IT 571176-87-9P 721883-32-5P 721883-33-6P
721883-34-7P 721883-35-8P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(synthesis, antiinflammatory, immunosuppressant effects of Triptolide derivs.)

RN 571176-87-9 HCAPLUS

CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-3b-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

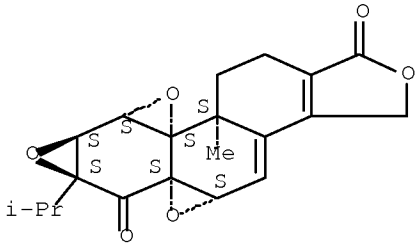
Absolute stereochemistry. Rotation (-).



RN 721883-32-5 HCAPLUS

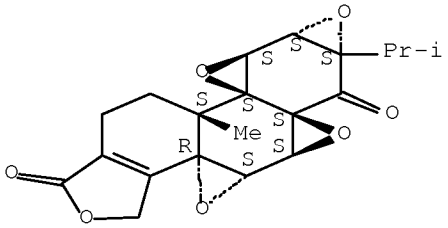
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 4a,7a,7b,8b,9,10-hexahydro-8b-methyl-6a-(1-methylethyl)-, (4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



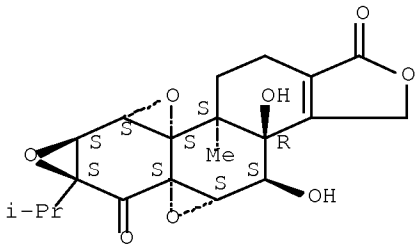
RN 721883-33-6 HCAPLUS
CN 1H-Tetraoxireno[4b,5:6,7:8a,9:10,10a]phenanthro[2,1-c]furan-1,6(6aH)-dione, 3,4a,4b,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,4bS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



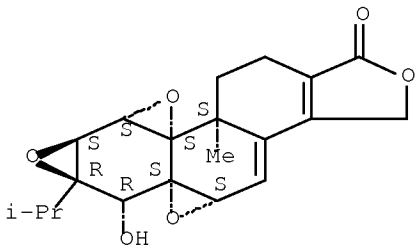
RN 721883-34-7 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-3b,4-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 721883-35-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 4a,6,6a,7a,7b,8b,9,10-octahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.

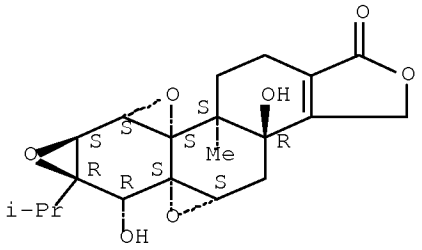


IT 583028-68-6P 721883-31-4P 721883-36-9P

721883-37-0P 721883-38-1P 721883-39-2P
721883-40-5P
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis, antiinflammatory, immunosuppressant effects of Triptolide derivs.)

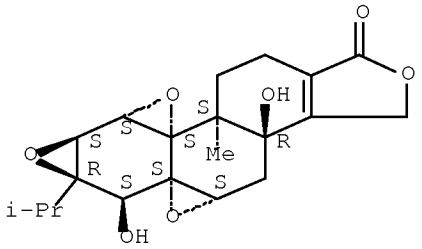
RN 583028-68-6 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



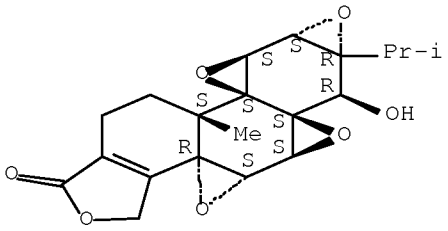
RN 721883-31-4 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



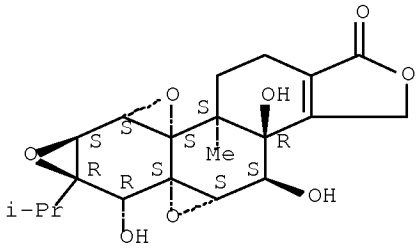
RN 721883-36-9 HCAPLUS
CN 1H-Tetrakisoxireno[4b,5:6,7:8a,9:10,10a]phenanthro[1,2-c]furan-1-one, 3,4a,4b,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,4bS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



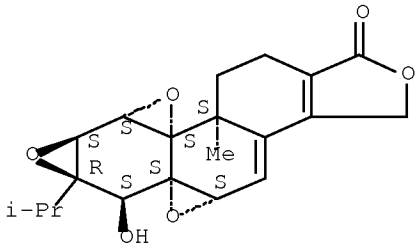
RN 721883-37-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,4,6-trihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



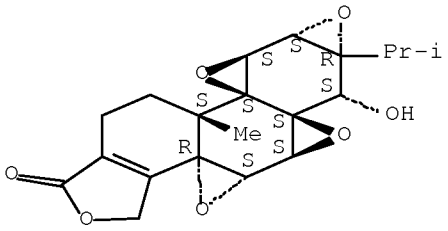
RN 721883-38-1 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 4a,6,6a,7a,7b,8b,9,10-octahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (4aS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



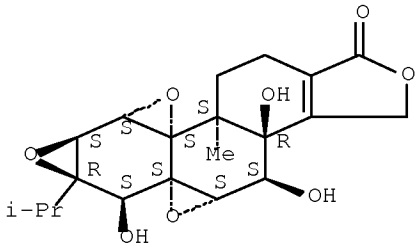
RN 721883-39-2 HCAPLUS
CN 1H-Tetrakisoxireno[4b,5:6,7:8a,9:10,10a]phenanthro[1,2-c]furan-1-one, 3,4a,4b,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,4bS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 721883-40-5 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,4,6-trihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4S,4aS,5aS,6S,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L7 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:873722 HCAPLUS Full-text
DOCUMENT NUMBER: 140:320071
TITLE: Cytotoxic biotransformed products from triptonide by Aspergillus niger
AUTHOR(S): Ning, Lili; Qu, Guiqin; Ye, Min; Guo, Hongzhu; Bi, Kaishun; Guo, Dean
CORPORATE SOURCE: The State Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University, Beijing, Peop. Rep. China
SOURCE: Planta Medica (2003), 69(9), 804-808
CODEN: PLMEAA; ISSN: 0032-0943
PUBLISHER: Georg Thieme Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 140:320071
AB The diterpenoid triepoxides are the major active constituents of Tripterygium wilfordii with potent antitumor and immune activities. But the strong toxicity of these compds. has restricted their application to a great extent. In order to find more effective compds. with less toxicity, structural modifications of triptonide (1) by Aspergillus niger (AS 3,739) were investigated and four biotransformed products were obtained. Based on their chemical and spectral data, their structures were elucidated as 5α-hydroxytriptonide (2), triptolide (3), 17-hydroxytriptonide (4), and 16-hydroxytriptonide (5), among which 2, 4 and 5 are new compds. All the three new transformed products showed cytotoxic activities against the majority of the human tumor cell lines tested, however, they are found to possess less

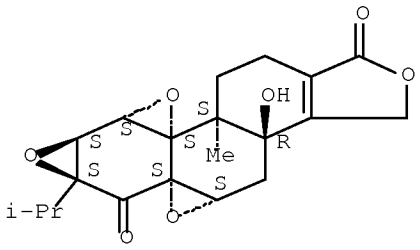
cytotoxic activity when compared with 1. Both compds. 4 and 5 showed similar cytotoxic activity and their IC50 values were 5-15 fold less than 1, while 2 is about 100 times less active than 1.

IT 571176-87-9P, 5α-Hydroxytriptonide
RL: BMF (Bioindustrial manufacture); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(cytotoxic biotransformed products from triptonide by Aspergillus niger)

RN 571176-87-9 HCAPLUS

CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-3b-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:406302 HCAPLUS Full-text

DOCUMENT NUMBER: 139:197626

TITLE: Biotransformation of triptolide by Cunninghamella blakesleana

AUTHOR(S): Ning, Lili; Zhan, Jixun; Qu, Guiqin; Zhong, Lei; Guo, Hongzhu; Bi, Kaishun; Guo, Dean

CORPORATE SOURCE: School of Pharmaceutical Sciences and Modern Research Center for Traditional Chinese Medicine, The State Key Lab of Nat and Biomimetic Drugs, Peking University, Beijing, 100083, Peop. Rep. China

SOURCE: Tetrahedron (2003), 59(23), 4209-4213
CODEN: TETRAB; ISSN: 0040-4020

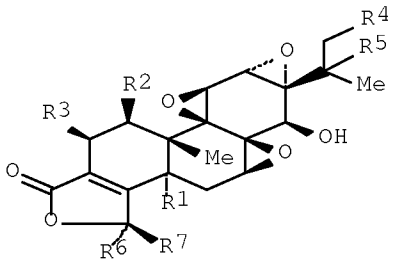
PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 139:197626

GI



I

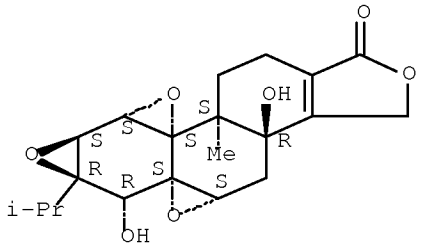
AB Biotransformation of triptolide (I; R1-R7 = H) by Cunninghamella blakesleana (AS 3.970) was carried out. Seven biotransformation products were obtained and four of them were characterized as new compds. On the basis of their NMR and mass spectral data, their structures were characterized as 5α-hydroxytriptolide I [R1 = OH, R2-R7 = H (II)] 1β-hydroxytriptolide I [R2 = OH, R1,R3-R7 = H (III)], triptodiolide I [R3 = OH, R1,R2,R4-R7 = H (IV)], 16-hydroxytriptolide I [R4 = OH, R1-R3,R5-R7 = H (V)] triptolidenol I [R5 = OH, R1-R4,R6,R7 = H (VI)], 19α-hydroxytriptolide I [R6 = OH, R1-R5,R7 = H (VII)], and 19β-hydroxytriptolide I [R7 = OH, R1-R6 = H (VIII)]. All the new transformed products, II, III, VII and VIII, were found to exhibit potent in vitro cytotoxicity against some human tumor cell lines.

IT 583028-68-6P, (-)-5α-Hydroxytryptolide
RL: BPN (Biosynthetic preparation); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(preparation and cytotoxicity of hydroxytriptolides obtained via biotransformation of triptolide by Cunninghamella blakesleana)

RN 583028-68-6 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-3b,6-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

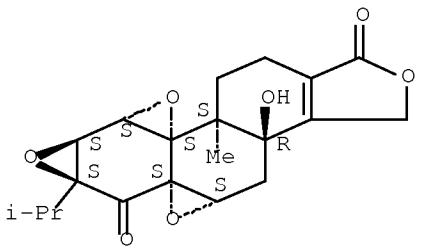
L7 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:321361 HCAPLUS Full-text
DOCUMENT NUMBER: 139:148528
TITLE: Biotransformation of triptonide by cell suspension cultures of Platycodon grandiflorum
AUTHOR(S): Ning, Lili; Guo, Hongzhu; Jiang, Xiaomei; Bi, Kaishun;

Guo, Dean
CORPORATE SOURCE: The State Key Laboratory of Natural and Biomimetic Drugs, School of Pharmaceutical Sciences, Peking University, Beijing, 100083, Peop. Rep. China
SOURCE: Pure and Applied Chemistry (2003), 75(2-3), 389-392
CODEN: PACHAS; ISSN: 0033-4545
PUBLISHER: International Union of Pure and Applied Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 139:148528
AB The biotransformation of triptonide by cell suspension cultures of Platycodon grandiflorum was investigated. After six days of incubation, five products were obtained. On the basis of chemical and spectral evidence, their structures were elucidated as epitriptolide-14-O-β-D-glucoside, 5α-hydroxytriptonide, triptolide, triptodiolide, and 2β-hydroxytriptonide, among which epitriptolide-14-O-β-D- glucoside and 5α-hydroxytriptonide are new compds.

IT 571176-87-9P, 5α-Hydroxytriptonide
RL: BPN (Biosynthetic preparation); PRP (Properties); BIOL (Biological study); PREP (Preparation)
(biotransformation of triptonide by cell suspension cultures of Platycodon grandiflorum)

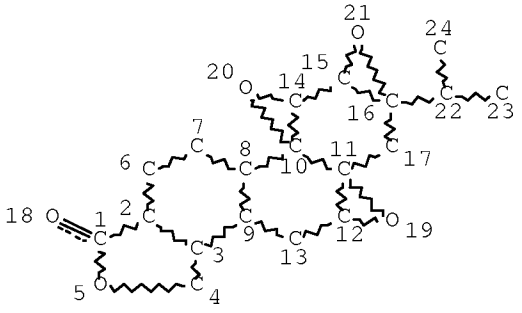
RN 571176-87-9 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-3b-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bR,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

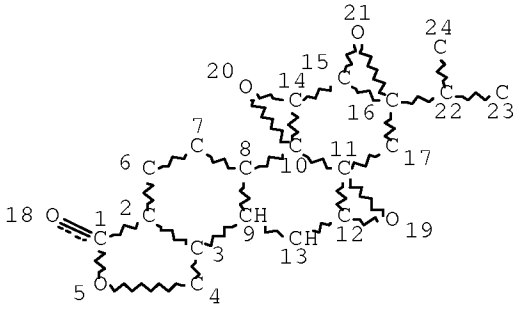
=> => d stat que l29
L1 STR



NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE
L3 102 SEA FILE=REGISTRY SSS FUL L1
L5 STR



NODE ATTRIBUTES:
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE
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L7 19 SEA FILE=HCAPLUS ABB=ON PLU=ON L6
L8 86 SEA FILE=REGISTRY ABB=ON PLU=ON L3 NOT L6
L9 585 SEA FILE=HCAPLUS ABB=ON PLU=ON L8
L19 6486 SEA FILE=HCAPLUS ABB=ON PLU=ON "LI YUANCHAO"/AU OR LI Y/AU OR LI Y ?/AU OR LI YUAN/AU OR LI YUAN CHAO/AU
L20 288 SEA FILE=HCAPLUS ABB=ON PLU=ON "ZUO JIANPING"/AU OR ZUO J/AU OR ZUO J P?/AU OR ZUO JIAN/AU OR ZUO JIAN P?/AU OR ZUO JIANPING/AU
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L22          272 SEA FILE=HCAPLUS ABB=ON  PLU=ON  "ZHOU RU"/AU OR ZHOU RU ?/AU
                 OR ZHOU R/AU OR ZHOU R ?/AU
L23         1302 SEA FILE=HCAPLUS ABB=ON  PLU=ON  DING J/AU OR DING J ?/AU OR
                 DING JIAN/AU OR DING JIAN ?/AU
L24           65 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L19 AND (L20 OR L21 OR L22 OR
                 L23)
L25           20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L20 AND (L21 OR L22 OR L23)
L26            5 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L21 AND (L22 OR L23)
L27            2 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L22 AND L23
L28           10 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L19 OR L20 OR L21 OR L22 OR
                 L23) AND L9
L29           69 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L24 OR L25 OR L26 OR L27 OR
                 L28) NOT L7


=> d ibib abs hitstr l29 1-69

L29  ANSWER 1 OF 69  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2008:366816  HCAPLUS  Full-text
DOCUMENT NUMBER:          148:508611
TITLE:                    Temperature dependence of effective g factor in
                          diluted magnetic semiconductor (Ga,Mn)As
AUTHOR(S):                Zhou, R.; Sun, B. Q.; Ruan, X. Z.; Luo, H. H.; Ji,
                          Y.; Wang, W. Z.; Zhang, F.; Zhao, J. H.
CORPORATE SOURCE:         SKLSM, Institute of Semiconductors, CAS, Beijing,
                          100083, Peop. Rep. China
SOURCE:                   Journal of Applied Physics (2008), 103(5),
                          053901/1-053901/6
                          CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER:                American Institute of Physics
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB    Time resolved magneto-optic Kerr rotation measurements of optically induced
      spin quantum beats are performed on heavily doped bulk (Ga,Mn)As diluted
      magnetic semiconductors (DMS).  An effective g-factor of .apprx.0.2-0.3 over a
      wide range of temperature for both as-grown and annealed (Ga,Mn)As samples is
      obtained.  A larger effective g-factor at lower temperature and an increase of
      the spin relaxation with increasing in-plane magnetic field are observed and
      attributed to the stronger p-d exchange interaction between holes and the
      localized magnetic ion spins, leading to a larger Zeeman splitting and heavy-
      hole-light-hole mixing.  An abnormal dip structure of the g-factor in the
      vicinity of the Curie temperature suggests that the mean-field model is
      insufficient to describe the interactions and dynamics of spins in DMS because
      it neglects the short-range spin correlation effect.  (c) 2008 American
      Institute of Physics.
REFERENCE COUNT:          33    THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS
                                RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29  ANSWER 2 OF 69  HCAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:         2008:339585  HCAPLUS  Full-text
TITLE:                    Synthesis and structure-immunosuppressive activity
                          relationships of bakuchiol and its derivatives
AUTHOR(S):                Chen, Hongli; Du, Xiaolong; Tang, Wei; Zhou, Yu; Zuo,
                          Jianping; Feng, Huijin; Li, Yuanchao
CORPORATE SOURCE:         Shanghai Institute of Materia Medica, Zhangjiang
                          Hi-Tech Park, Chinese Academy of Sciences, Shanghai,
                          201203, Peop. Rep. China
SOURCE:                   Bioorganic & Medicinal Chemistry (2008), 16(5),
```

2403-2411
CODEN: BMECEP; ISSN: 0968-0896
PUBLISHER: Elsevier Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A series of derivs. of bakuchiol were synthesized and tested in vitro for their cytotoxicity, and inhibition of T cell proliferation and B cell proliferation. The data obtained provided preliminary structure-activity relationships of the compds. as immunosuppressive activity.
IT INDEXING IN PROGRESS
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 3 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2008:333647 HCAPLUS Full-text
DOCUMENT NUMBER: 148:462773
TITLE: The new water-soluble artemisinin derivative SM905 ameliorates collagen-induced arthritis by suppression of inflammatory and Th17 responses
AUTHOR(S): Wang, J.-X.; Tang, W.; Zhou, R.; Wan, J.; Shi, L.-P.; Zhang, Y.; Yang, Y.-F.; Li, Y.; Zuo, J.-P.
CORPORATE SOURCE: First Department of Pharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: British Journal of Pharmacology (2008), 153(6), 1303-1310
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Our previous study showed that SM905, a novel artemisinin derivative, exhibited potent immunosuppressive activity. In this study, we evaluate preventive and therapeutic effect of SM905 on collagen-induced arthritis (CIA) in DBA/1 mice, and investigate its mechanisms both in inflammatory and autoimmune aspects of the disease. CIA was induced by type II bovine collagen (CII) in DBA/1 mice. SM905 was given orally either before (continuously 1 day before booster immunization) or after disease onset (continuously 14 days after booster immunization). Disease incidence and severity were monitored, mRNA expression of proinflammatory mediators was determined by real-time PCR, purified T cell proliferation was assessed using [3H]-thymidine incorporated assay, and T helper (Th) 17/Th1/Th2 type cytokine production was examined by ELISA. Oral treatment with SM905 delayed disease onset, reduced arthritis incidence and severity, and suppressed the enhanced expression of pro-inflammatory cytokines, chemokines and chemokine receptors in draining lymph nodes. The CII-induced T cell proliferation and production of interleukin (IL)-17A by T cells were strikingly inhibited. Correspondingly, the mRNA expression of IL-17A and RORγt (a specific transcription factor for Th17) was also reduced. This effect was coupled with a striking reduction of IL-6 production, which has a critical role in Th17 development. In established arthritis, SM905 profoundly inhibited disease progression, reduced IL-17A and RORγt mRNA expression, and suppressed pro-inflammatory mediator expression in arthritic joints. SM905 had beneficial effects on CIA by suppressing inflammatory and pathogenic Th17 responses.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 4 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:808752 HCAPLUS Full-text
DOCUMENT NUMBER: 148:275384
TITLE: Microstructural studies of L10-FePt thin films with high coercivity fabricated at low deposition temperatures
AUTHOR(S): Zhao, Z. L.; Ding, J.; Li, Y.; Chow, G. M.; Chen, J. S.; Wang, J. P.
CORPORATE SOURCE: Department of Material Sciences & Engineering, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science (2007), 38A(4), 811-814
CODEN: MMTAEB; ISSN: 1073-5623
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The influence of ultrathin nonmagnetic Ag layers on the formation of the ordered fct.-L10 PtFe phase and their magnetic properties were studied, when the thin FePt films were deposited on MgO (100) single-crystal substrates. Epitaxial growth of the FePt (001) films was observed at the deposition temperature of 400°. With ultrathin Ag intermediate layers deposited between FePt layers, the surface morphol. changed from the interconnection network to isolated-island character. The perpendicular coercivity of the FePt film dramatically increased from 6.5 to 32.5 kOe. The formation mechanism of the isolated island morphol. of FePt thin films is discussed.
REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 5 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:641561 HCAPLUS Full-text
DOCUMENT NUMBER: 147:70908
TITLE: Myeloid suppressor cell-associated immune dysfunction in CSA1M fibrosarcoma tumor-bearing mice
AUTHOR(S): Zhou, Ru; He, Pei-Lan; Ren, Yong-Xin; Wang, Wen-Hai; Zhou, Rong-Yao; Wan, Hua; Ono, Shiro; Fujiwara, Hiromi; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Cancer Science (2007), 98(6), 882-889
CODEN: CSACCM; ISSN: 1347-9032
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB CSA1M tumor-bearing mice exhibited a severe immune dysfunction but the underlying mechanism remained unclear. In this study, the authors demonstrated that the myeloid suppressor cell (Mac-1+Gr-1+ cells)-(MSC) related T cell immunosuppression in this tumor-bearing model. In mice at the late stage of CSA1M tumor-bearing (Late TB [8-10 wk after cell inoculation in male BALB/c mice]), the percentages for CD4+ and CD8+ T cells decreased but Mac-1+ cells increased in spleens with severe splenomegaly. There was no deficit for Con A-induced CD4+ and CD8+ T cell proliferation, interferon-γ (IFN-γ) and interleukin (IL)-4 production, but delayed-type hypersensitivity reaction were attenuated. Anal. of cytokine production in unfractionated spleen cells showed a significant reduction of IFN-γ and a marked increase of IL-10 and IL-4. In Late-TB mice, splenic MSC number intensively accumulated;

the mRNA expressions of the signal transducer and activator of transcription 1, interferon regulatory factor 1 (IRF-1), and inducible nitric-oxide synthase (iNOS) were enhanced in MSC; the nitric oxide production and arginase enzyme activity increased in MSC as well. Furthermore, the Con A-induced T cell proliferation was inhibited in the presence of lipopolysaccharide- or IFN-γ-activated MSC from Late-TB mice, which could be reversed by the iNOS specific inhibitor L-NMMA. INOS seemed to be required more than arginase for the suppressive activity of MSC. Taken together, the authors' results suggest that the immune dysfunction in tumor-bearing mice might be causally associated with the accumulation of MSC and its tumor-favoring property.

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 6 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:635508 HCAPLUS Full-text
DOCUMENT NUMBER: 147:102646
TITLE: Spin-orbital entanglement and quantum phase transitions in a spin-orbital chain with SU(2)×SU(2) symmetry
AUTHOR(S): Chen, Yan; Wang, Z. D.; Li, Y. Q.; Zhang, F. C.
CORPORATE SOURCE: Department of Physics and Center of Theoretical and Computational Physics, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Physical Review B: Condensed Matter and Materials Physics (2007), 75(19), 195113/1-195113/5
CODEN: PRBMDO; ISSN: 1098-0121
PUBLISHER: American Physical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Spin-orbital entanglement in quantum spin-orbital systems is quantified by a specifically reduced von Neumann entropy and is calculated for the ground state of a coupled spin-orbital chain with SU(2)×SU(2) symmetry. By analyzing the discontinuity and local extreme of the reduced entropy, we deduce a rich phase diagram describing quantum phase transitions in this system with complex correlations between multiple degrees of freedom.

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 7 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:524158 HCAPLUS Full-text
DOCUMENT NUMBER: 147:157839
TITLE: Suppressive effect of a novel water-soluble artemisinin derivative SM905 on T cell activation and proliferation in vitro and in vivo
AUTHOR(S): Wang, Jun-Xia; Tang, Wei; Yang, Zhong-Shun; Wan, Jin; Shi, Li-Ping; Zhang, Yu; Zhou, Ru; Ni, Jia; Hou, Li-Fei; Zhou, Yu; He, Pei-Lan; Yang, Yi-Fu; Li, Ying; Zuo, Jian-Ping
CORPORATE SOURCE: First Department of Pharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: European Journal of Pharmacology (2007), 564(1-3), 211-218
CODEN: EJPHAZ; ISSN: 0014-2999
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal

LANGUAGE: English

AB Artemisinin and its derivs. exhibit potent immunosuppressive activity. The aim of this study was to investigate the suppressive effects of SM905, a new water-soluble artemisinin derivative, on T lymphocytes both in vitro and in vivo, and explore its potential mode of action. The results showed that SM905 had a high inhibitory activity in Con A (ConA)-induced splenocyte proliferation and mixed lymphocyte reaction, and a relatively low cytotoxicity in vitro. In ovalbumin-immunized mice, oral administration of SM905 dose-dependently suppressed T cell proliferative response to ovalbumin, and inhibited anti-ovalbumin interleukin-2 (IL-2) and interferon-γ (IFN-γ) production by T cells. Further studies showed that SM905 inhibited TCR (T cell receptor)/CD3 plus CD28-mediated primary T cell proliferation and cytokine production (IL-2 and IFN-γ), and exerted an inhibitory action on the phosphorylation of mitogen-activated protein (MAP) kinases including extracellular signal-regulated kinase (ERK), p38 and Jun N-terminal kinase (JNK), and the activation of Ras. The results of this study provided exptl. evidence that the new artemisinin derivative SM905 had immunosuppressive effects both in vitro and in vivo. SM905 suppressed T cell activation, which was associated with the inhibition of MAP kinases and Ras activation. Our results suggested a potential of SM905 to be developed as a new type agent for treating T cell-mediated immune disorder.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 8 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:426132 HCAPLUS Full-text

DOCUMENT NUMBER: 146:423967

TITLE: Microfluidic T-form mixer utilizing pressure disturbances

AUTHOR(S): Ma, Y. B.; Fields, M.; Sun, C. P.; Zhang, F. Y.; Liao, J. C.; Li, Y.; Churchill, B. M.; Ho, C. M.

CORPORATE SOURCE: Department of Mechanical and Aerospace Engineering, UCLA, Los Angeles, CA, 90095, USA

SOURCE: NSTI Nanotech 2006, NSTI Nanotechnology Conference and Trade Show, Boston, MA, United States, May 7-11, 2006 (2006), Volume 2, 651-654. Editor(s): Laudon, Matthew; Romanowicz, Bart. Nano Science and Technology Institute: Cambridge, Mass. CODEN: 69JBY7; ISBN: 0-9767985-9-X

DOCUMENT TYPE: Conference; (computer optical disk)

LANGUAGE: English

AB A simple solution to mixing problems in micro fluidic systems was presented in this paper. A T-form microfluidic mixer was designed and tested utilizing pressure disturbances. The performance of the mixer was studied through both numerical simulation and experimentation. Based on results of numerical simulation, > 75% mixing can be finished within a mixing distance of < 1.5 mm from the T-junction for flow with Reynolds number < 0.24. For Reynolds number > 0.24, .apprx. 90% mixing can be finished in < 1.5 mm. The numerical results were validated by mixing two aqueous solns. under the microscope and the flow field was visualized using two different dyes. There was very good agreement between the numerical simulation results and exptl. results in flow patterns.

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 9 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2007:243125 HCAPLUS Full-text

DOCUMENT NUMBER: 146:372238

TITLE: Investigation of the immunosuppressive activity of

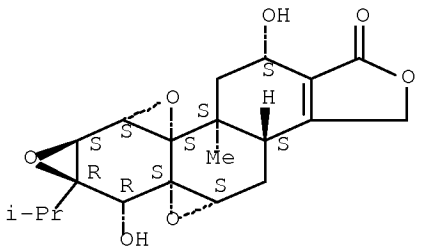
artemether on T-cell activation and proliferation
AUTHOR(S): Wang, J.-X.; Tang, W.; Shi, L.-P.; Wan, J.; Zhou, R.; Ni, J.; Fu, Y.-F.; Yang, Y.-F.; Li, Y.; Zuo, J.-P.
CORPORATE SOURCE: First Department of Pharmacology, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: British Journal of Pharmacology (2007), 150(5), 652-661
CODEN: BJPCBM; ISSN: 0007-1188
PUBLISHER: Nature Publishing Group
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Artemisinin and its derivs. exhibit potent immunosuppressive activity. The purpose of the current study was to examine the immunosuppressive activity of artemether directly on T lymphocytes and to explore its potential mode of action. In vitro, T-cell proliferation was measured using [3H]-thymidine incorporation assay in cells stimulated with ConA, alloantigen and anti-CD3 antibody. CFSE-labeled cell division and cell cycle distribution were monitored by flow cytometry. In vivo, the effects of artemether were evaluated in delayed-type hypersensitivity (DTH) and purified T-cell responses to ovalbumin in ovalbumin-immunized mice. The activation of extracellular signal-regulated kinase1/2 (ERK1/2) and Raf1 were assessed by Western blot anal. and the activation of Ras was tested in pull-down assays. We show that, in vitro, artemether suppressed ConA- or alloantigen-induced splenocyte proliferation, influenced production of the cytokines IL-2 and IFN-γ and inhibited cell cycle progression through the G0/G1 transition. In vivo, administration of artemether attenuated CD4 T-cell-mediated DTH reaction, and suppressed antigen-specific T-cell response in immunized mice. Further expts. showed that, treatment with artemether impaired both antigen- and anti-CD3-induced phosphorylation of ERK. In primary T cells, artemether profoundly inhibited anti-CD3-induced phosphorylation of Raf1 and activation of Ras. This study provided exptl. evidence of the immunosuppressive effects of artemether directly on T cells both in vitro and in vivo. Its immunosuppressive mechanism involved inhibition of the activation of the Ras-Raf1-ERK1/2 protein kinase cascade in T cells.
REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 10 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2007:6978 HCAPLUS Full-text
DOCUMENT NUMBER: 146:426464
TITLE: Bamboo-shaped carbon nanotubes produced by catalytic decomposition of methane over nickel nanoparticles supported on aluminum
AUTHOR(S): Zhao, N. Q.; He, C. N.; Ding, J.; Zou, T. C.; Qiao, Z. J.; Shi, C. S.; Du, X. W.; Li, J. J.; Li, Y. D.
CORPORATE SOURCE: School of Materials Science and Engineering, Tianjin University, Tianjin, 300072, Peop. Rep. China
SOURCE: Journal of Alloys and Compounds (2007), 428(1-2), 79-83
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bamboo-shaped carbon nanotubes (CNTs) and herringbone nanofibers were prepared by a decomposition of CH4 over Ni/Al catalyst under N2 at the low temperature

(500-600°). TEM was used to investigate the bamboo-shaped CNTs and the nanofibers. High-resolution TEM anal. revealed that 2 species of bamboo-shaped tubes with different morphologies and structures, categorized according to the shape and participation of the encapsulated catalytic nanoparticles, coexist in one sample. The morphol. and structure of the catalytic particles play very important roles during carbon nanomaterial growth. The growth mechanisms for the bamboo-shaped CNTs and nanofibers are proposed in detail, especially the formation process of compartments of the bamboo-shaped CNTs.
REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 11 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:998234 HCAPLUS Full-text
DOCUMENT NUMBER: 147:138321
TITLE: Diterpene constituents of Tripterygium wilfordii
AUTHOR(S): Lin, Sui; Yu, Xianyong; Que, Huiqing; Chen, Zhong; Xie, Dilin; Li, Yuanchao
CORPORATE SOURCE: Fujian Institute of Medical Sciences, Fuzhou, 350001, Peop. Rep. China
SOURCE: Yaoxue Xuebao (2005), 40(7), 632-635
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Yaoxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB The chemical constituents of Tripterygium wilfordii were studied. Various column chromatogs. with silica gel were used for the isolation and purification The structures of compds. were established on the basis of IR, MS, UV, 1H NMR, 13C NMR, and HRMS, 1H-1H COSY, 1H-13C COSY, and NOESY. Four diterpenoids were isolated: 16-hydroxytriptolide (I), triptolidenol (II), tripdiolide (III), 2-epitripdiolide (IV). Compound IV is a new diterpenoid.
IT 38647-10-8P, Tripdiolide 74409-90-8P 99694-86-7P, Triptolidenol 139713-80-7P, 16-Hydroxytriptolide
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation and characterization of diterpene constituents of Tripterygium wilfordii)
RN 38647-10-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10S)- (CA INDEX NAME)

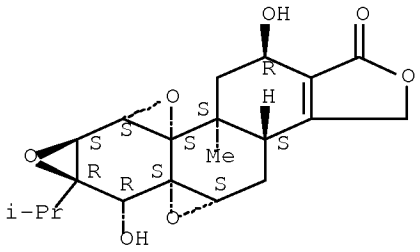
Absolute stereochemistry. Rotation (-).



RN 74409-90-8 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6,10-dihydroxy-8b-methyl-6a-(1-

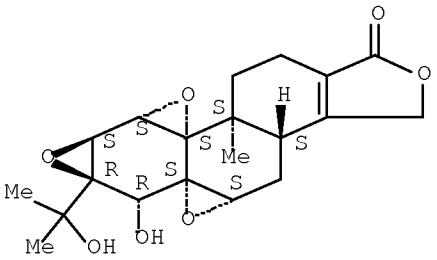
methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS,10R)- (CA INDEX NAME)

Absolute stereochemistry.



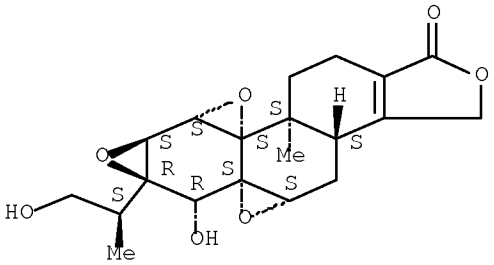
RN 99694-86-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-(1-hydroxy-1-methylethyl)-8b-methyl-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 139713-80-7 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-6a-[(1S)-2-hydroxy-1-methylethyl]-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



L29 ANSWER 12 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:619193 HCAPLUS Full-text
DOCUMENT NUMBER: 145:218345
TITLE: Spin-orbital entanglement and phase diagram of spin-orbital chain with SU(2) × SU(2) symmetry
AUTHOR(S): Chen, Yan; Wang, Z. D.; Li, Y. Q.; Zhang, F. C.
CORPORATE SOURCE: Department of Physics and Center of Theoretical and Computational Physics, The University of Hong Kong, Hong Kong, Peop. Rep. China
SOURCE: Los Alamos National Laboratory, Preprint Archive, Condensed Matter (2006) 1-5, arXiv:cond-mat/0606194, 7 Jun 2006
CODEN: LNCMFR
URL: http://aps.arxiv.org/PS_cache/cond-mat/pdf/0606/0606194.pdf
PUBLISHER: Los Alamos National Laboratory
DOCUMENT TYPE: Preprint
LANGUAGE: English

AB Spin-orbital entanglement in quantum spin-orbital systems is quantified by a reduced von Neumann entropy, and is calculated for the ground state of a coupled spin-orbital chain with SU(2) × SU(2) symmetry. By analyzing the discontinuity and local extreme of the reduced entropy as functions of the model parameters, we deduce a rich phase diagram to describe the quantum phase transitions in the model. Our approach provides an efficient and powerful method to identify phase boundaries in a system with complex correlation between multiply degrees of freedom.

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 13 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:264190 HCAPLUS Full-text
DOCUMENT NUMBER: 145:508262
TITLE: Hydrogen production by fermentation: review of a new approach to environmentally safe energy production
AUTHOR(S): Ren, N. Q.; Li, Y. F.; Wang, A. J.; Li, J. Z.; Ding, J.; Zadsar, M.
CORPORATE SOURCE: Harbin Institute of Technology, Municipal and Environmental Engineering School, Harbin, 150090, Peop. Rep. China
SOURCE: Aquatic Ecosystem Health & Management (2006), 9(1), 39-42
CODEN: AEHMF4; ISSN: 1463-4988
PUBLISHER: Taylor & Francis, Inc.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review. As a new clean energy source, the demands for and use of hydrogen fuel are rapidly increasing. Therefore, biohydrogen production technol. is being developed to reduce operation costs in many countries. Improvement of biohydrogen production capacity and cost reduction are key factors to bring about industrial implementation. One of the most effective production methods is microbiol.: the use of bacteria with high hydrogen-production capacity and performance. The anaerobic process of biohydrogen production was developed in the 1990s. The isolation and identification of highly efficient biohydrogen producing anaerobic bacteria is an important foundation for the fermentative production of hydrogen by anaerobic digestion of organic wastewater.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 14 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2006:264141 HCAPLUS Full-text
DOCUMENT NUMBER: 146:118120
TITLE: Ultrastructural changes of nucleoli in common wheat induced by actinomycin D in People's Republic of China
AUTHOR(S): Dai, J.; Han, Y.; Xu, B.; Li, Y.; Liu, J.; Zhao, Y.; Zhang, F.
CORPORATE SOURCE: College of Life Science, Capital Normal University, Beijing, 100037, Peop. Rep. China
SOURCE: Biotechnic & Histochemistry (2005), 80(5-6), 223-225
CODEN: BIHIEU; ISSN: 1052-0295
PUBLISHER: Taylor & Francis Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Common wheat root tip meristematic cells were treated with low concns. of actinomycin D (ActD), then stained whole by silver nitrate. We showed by transmission electron microscopy that the typical nucleolar structure did not form, but a granular and fibrillar network was exhibited in the nucleolar region. Our results support a correlation between nucleolar organization/assembly and the activation of RNA polymerase I transcription. Furthermore, we speculate that the fibrillar network present in the nucleolar region of ActD treated cells may represent the basic skeletal structure required to support the nucleolus.
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 15 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:220317 HCAPLUS Full-text
DOCUMENT NUMBER: 144:304791
TITLE: S-adenosyl-L-homocysteine hydrolase inactivation curtails ovalbumin-induced immune responses
AUTHOR(S): Fu, Yun-Feng; Wang, Jun-Xia; Zhao, Yang; Yang, Yang; Tang, Wei; Ni, Jia; Zhu, Yi-Na; Zhou, Ru; He, Pei-Lan; Li, Chuan; Li, Xiao-Yu; Yang, Yi-Fu; Lawson, Brian R.; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology and State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Graduate School of the Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(3), 1229-1237
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The reversible S-adenosyl-L-homocysteine (AdoHcy) hydrolase inhibitor Me 4-(adenin-9-yl)-2-hydroxybutanoate (DZ2002) suppresses macrophage activation and function. The effects of DZ2002 on T cell function, however, are still unclear. Here, we examined whether DZ2002 alters type 1 helper T cell (Th1) and/or type 2 helper T cell (Th2) immune responses, and whether these effects are associated with both the inhibition of AdoHcy hydrolase and intracellular elevation of endogenous AdoHcy. Male C57BL/6 mice immunized with ovalbumin (OVA) were treated with DZ2002 (1, 5, and 25 mg/kg/day) after which lymphocyte proliferation, cytokine production, and IgG responses to OVA were monitored. Administration of DZ2002 dose dependently suppressed OVA-specific lymphocyte proliferation and anti-OVA IgG production compared with controls. Interleukin (IL)-2 and interferon (IFN)-γ as well as anti-OVA IgG2a and IgG3, indicators

of Th1 immune responses, were markedly decreased in mice treated with DZ2002, whereas IL-4 and anti-OVA IgG1, indicators of Th2 immune responses, were only mildly suppressed. AdoHcy hydrolase activity in spleens of DZ2002-treated mice was substantially blocked, and not surprisingly, AdoHcy levels were significantly elevated compared with controls. Finally, similar immunosuppressive effects were also observed in mice treated with AdoHcy. These data strongly indicate that DZ2002 suppresses antigen-induced specific immune responses, particularly Th1 responses, through inhibition of AdoHcy hydrolase and elevation of endogenous AdoHcy.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 16 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2006:131935 HCAPLUS Full-text
DOCUMENT NUMBER: 144:184304
TITLE: Periplocoside E, and effective compound from Periploca sepium Bge, inhibited T cell activation in vitro and in vivo
AUTHOR(S): Zhu, Yi-Na; Zhao, Wei-Min; Yang, Yi-Fu; Liu, Qun-Fang; Zhou, Yu; Tian, Jia; Ni, Jia; Fu, Yun-Feng; Zhong, Xiang-Gen; Tang, Wei; Zhou, Ru; He, Pei-Lan; Li, Xiao-Yu; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratories of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2006), 316(2), 662-669
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Periploca sepium Bge, a traditional Chinese herb medicine, is used for treating rheumatoid arthritis in China. Followed the bioactivity-guided isolation, the most potent immunosuppressive compound, periplocoside E (PSE), a pregnane glycoside, had been identified from P. sepium Bge. We investigated the immunosuppressive effects of PSE in vitro and in vivo. The results showed that PSE in a dose-dependent manner significantly inhibited the proliferation of splenocytes induced by Con A and mixed lymphocyte culture reaction at no cytotoxic concns. (<5 μM). Administration of PSE suppressed a delayed-type hypersensitivity reaction, and ovalbumin (OVA) induced antigen-specific immune responses in mice. In vivo treatment with PSE dose dependently suppressed OVA-induced proliferation and cytokine [interleukin (IL)-2 and interferon (IFN)-γ] production from splenocytes in vitro. Purified T cells from OVA-immunized mice with PSE treatment showed its low ability for activation by OVA plus normal antigen presenting cell stimulation again in vitro. Further studies showed PSE dose dependently inhibited anti-CD3-induced primary T cell proliferation, activation for IL-2Rα (CD25) expression, and cytokine (IFN-γ and IL-2) production also at the transcriptional level. PSE was highly specific and significantly inhibited the activation of extracellular signal-regulated kinase and Jun N-terminal kinase, whereas activation of p38 was not affected in T cells stimulated with anti-CD3. These results demonstrated that PSE is an immunosuppressive compound in P. sepium Bge, which directly inhibits T cell activation in vitro and in vivo. This study provided evidence to understand the therapeutic effects of P. sepium Bge and indicated that this

herb is appropriate for treatment of T cell-mediated disorders, such as autoimmune diseases.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

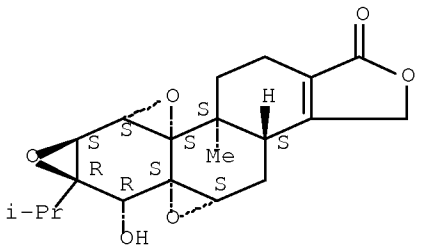
L29 ANSWER 17 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1343331 HCAPLUS Full-text
DOCUMENT NUMBER: 146:100878
TITLE: Progress in structure modification of Triptolide
AUTHOR(S): Zhang, Fan; Li, Yuanchao
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Yaoxue Xuebao (2004), 39(10), 857-864
CODEN: YHHPAL; ISSN: 0513-4870
PUBLISHER: Yaoxue Xuebao Bianjibu
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Chinese

AB A review with refs. on progress in structure modification of Triptolide with subdivision headings: (1) structural characteristics, physicochem. properties, and pharmacol. activity of Triptolide; (2) Triptolide derivative prepared by structural modification at different positions and their pharmacol. activities; (3) structure modified products from Triptolide analogs; and (4) conclusion.

IT 38748-32-2P, Triptolide
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(review structure modification of Triptolide)

RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L29 ANSWER 18 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1226329 HCAPLUS Full-text
DOCUMENT NUMBER: 144:381583
TITLE: A novel artemisinin derivative, 3-(12-β-artemisininoxy) phenoxyl succinic acid (SM735), mediates immunosuppressive effects in vitro and in vivo
AUTHOR(S): Zhou, Wen-liang; Wu, Jin-ming; Wu, Qing-li; Wang, Jun-xia; Zhou, Yu; Zhou, Ru; He, Pei-lan; Li, Xiao-yu; Yang, Yi-fu; Zhang, Yu; Li, Ying; Zuo,

Jian-ping
CORPORATE SOURCE: Laboratories of Immunopharmacology, Graduate School of the Chinese Academy of Sciences, State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2005), 26(11), 1352-1358
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Aim: To study the immunosuppressive activity of SM735, a synthetic artemisinin derivative with nonsteroidal anti-inflammatory drug structure, with the aim of finding potential immunosuppressive agents. Methods: Con A (ConA), lipopolysaccharide (LPS), and mixed lymphocyte reaction (MLR), were used to induce the proliferation of splenocytes, and [3H]-thymidine incorporation was used to evaluate the proliferation of splenocytes. Cytokine production was promoted with ConA, LPS, or PMA plus ionomycin, and was detected with the ELISA. Dinitrofluorobenzene (DNFB) and sheep red blood cells (SRBC) were used to induce delayed-type hypersensitivity and quant. hemolysis of SRBC (QHS) mouse models, as criteria for the evaluation of in vivo immune activity. Results: SM735 strongly inhibited the proliferation of splenocytes induced by ConA, LPS, or MLR, with IC50 values of 0.33 μmol/L, 0.27 μmol/L, and 0.51 μmol/L, resp. When compared with a CC50 value of 53.1 μmol/L, SM735 had a favorable safety range. SM735 dose-dependently inhibited proinflammatory cytokine production [including interleukins (IL)-12, interferon (IFN)-γ and IL-6] induced by LPS or PMA plus ionomycin. Upon ConA stimulation, SM735 suppressed IFN-γ in a dose-dependent manner, but did not affect IL-2 secretion. SM735 also strongly suppressed both T-cell-mediated delayed-type hypersensitivity (DTH) and B-cell-mediated QHS reactions. Conclusion: SM735 had strong immunosuppressive activity in vitro and in vivo, suggesting a potential role for SM735 as an immunosuppressive agent, and established the groundwork for further research on SM735.

REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

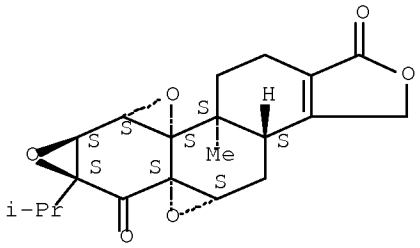
L29 ANSWER 19 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1117221 HCAPLUS Full-text
DOCUMENT NUMBER: 143:399815
TITLE: Immune inhibition of ethyl 6-amino-(R)-hydroxy-9H-purine-9-butyrate
INVENTOR(S): Zuo, Jianping; Yuan, Zhongsheng; Wu, Qingli; Ding, Jian; Yang, Yifu
PATENT ASSIGNEE(S): Shanghai Institute of Materia Medica, Chinese Academy of Sciences, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 18 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1565453	A	20050119	CN 2003-129337	20030618
PRIORITY APPLN. INFO.:			CN 2003-129337	20030618

AB The invention relates to the immune inhibition of 6-amino-(R)-hydroxy-9H-purine-9-butyrate (DZ2002) which is a reversible inhibitor to S-Adenosyl-L-homocysteine hydrolase (SAHH). Several in vitro expts. and in vivo animal studies show that DZ2002 has effects in selectively inhibiting the function of macrophages, activating the function of B cells, and inhibiting cellular and humoral immunity. In addition, the therapeutic dose of DZ2002 is far below its toxic dose; thus DZ2002 has a higher therapeutic index.

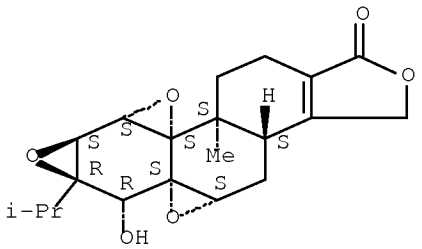
L29 ANSWER 20 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:604356 HCAPLUS Full-text
DOCUMENT NUMBER: 143:322309
TITLE: Diterpenoids from Tripterygium wilfordii Hook. F
AUTHOR(S): Chen, Yu; Yang, Guang-zhong; Zhao, Song; Li, Yuan-chao
CORPORATE SOURCE: Inst. Natl. Mater. Me, Coll. Chem. and Life Sci., South Central Univ. for Nationalities, Wuhan, 430074, Peop. Rep. China
SOURCE: Linchan Huaxue Yu Gongye (2005), 25(2), 35-38
CODEN: LHYGD7; ISSN: 0253-2417
PUBLISHER: Linchan Huaxue Yu Gongye Bianji Weiyuanhui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB To study the active principles in-root core of Tripterygium wilfordii Hook. f., eleven diterpenoid compds. were isolated from this plant by silica gel column chromatog. Their structures were identified as triptoquinone A (1), hypoglic acid (2), triptoquine (3), isoneotriptophenolide (4), hypolide (5), triptonoterpene Me ether (6), triptriolide (7), triptonide (8), triptolide (9), tripterfordin (10), 11-O-β-D-glucopyranosyl-neotritophenolide (11). Compound 11 is a novel compound
IT 38647-11-9P, Triptonide 38748-32-2P, Triptolide
RL: PRP (Properties); PUR (Purification or recovery); PREP (Preparation)
(diterpenoids from Tripterygium wilfordii Hook. F)
RN 38647-11-9 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



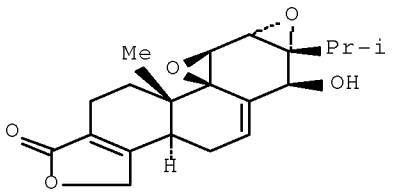
L29 ANSWER 21 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:413527 HCAPLUS Full-text
DOCUMENT NUMBER: 143:53143
TITLE: Inhibition of S-adenosyl-L-homocysteine hydrolase induces immunosuppression
AUTHOR(S): Wu, Qing-Li; Fu, Yun-Feng; Zhou, Wen-Liang; Wang, Jun-Xia; Feng, Yong-Hong; Liu, Jing; Xu, Jian-Yi; He, Pei-Lan; Zhou, Ru; Tang, Wei; Wang, Gui-Feng; Zhou, Yu; Yang, Yi-Fu; Ding, Jian; Li, Xiao-Yu; Chen, Xiao-Ru; Yuan, Chong; Lawson, Brian R.; Zuo, Jian-Ping
CORPORATE SOURCE: Laboratory of Immunopharmacology and State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, Peop. Rep. China
SOURCE: Journal of Pharmacology and Experimental Therapeutics (2005), 313(2), 705-711
CODEN: JPETAB; ISSN: 0022-3565
PUBLISHER: American Society for Pharmacology and Experimental Therapeutics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Lymphocytes depend on transmethylation reactions for efficient activation and function. These reactions are primarily catalyzed by S-adenosylmethionine-dependent methyltransferases, which convert S-adenosylmethionine to S-adenosyl-L-homocysteine. S-adenosyl-L- homocysteine is then hydrolyzed by S-adenosyl-L-homocysteine hydrolase to prevent feedback inhibition of transmethylation reactions. By impeding S-adenosyl-L-homocysteine hydrolase, a build-up of S-adenosyl-L- homocysteine occurs, and most intracellular transmethylation reactions cease. Thus, a nontoxic inhibitor of this enzyme might be a useful immunosuppressive therapeutic agent. We identified a potent reversible type III inhibitor of S-adenosyl-L-homocysteine hydrolase, DZ2002 [methyl 4-(adenin-9-yl)-2-hydroxybutanoate], and determined its cytotoxic and immunol. effects. We demonstrated that DZ2002 blocked S-adenosyl-L-homocysteine hydrolase more effectively than a type I inhibitor, but cytotoxicity from DZ2002 was greatly reduced. Although DZ2002 did not prevent Con A-induced T cell proliferation or interleukin (IL)-2 production, it significantly reduced both a mixed lymphocyte reaction and IL-12 production from in vitro-stimulated splenocytes. In addition, levels of CD80 and CD86 on human monocytic THP-1 cells were decreased in a dose-dependent manner in the presence of 0.1 to 10 μM DZ2002, and decreases were also seen in IL-12 and tumor necrosis factor-α production from both mouse thioglycollate-stimulated peritoneal macrophages and THP-1 cells. In vivo, DZ2002 significantly suppressed a delayed-type hypersensitivity reaction as well as antibody secretion. We conclude that DZ2002's immunosuppressive effects are likely not

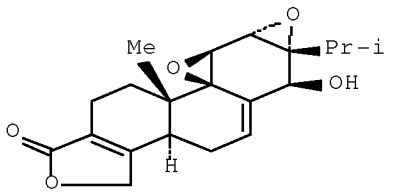
solely attributed to T cell inhibition but also to the obstruction of macrophage activation and function through redns. in cytokine output and/or T cell costimulation. These data suggest an important dual role for the S-adenosyl-L- homocysteine hydrolase in both macrophage and T cell function.

REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 22 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:264981 HCAPLUS Full-text
DOCUMENT NUMBER: 143:306433
TITLE: Synthesis of the analogs of triptolide: 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones
AUTHOR(S): Zhang, Fan; Li, Yuan Chao
CORPORATE SOURCE: Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Chinese Chemical Letters (2005), 16(2), 205-208
CODEN: CCLEE7; ISSN: 1001-8417
PUBLISHER: Chinese Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 143:306433
GI



I



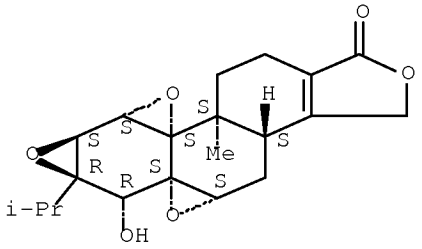
II

AB Two novel analogs I and II of triptolide were synthesized using triptolide as the starting material through reductive opening of epoxy ring, hydration and olefin epoxidn., and related ketones have also been afforded by oxidation of them with IBX or Jones' reagent.

IT 38748-32-2, Triptolide
RL: RCT (Reactant); RACT (Reactant or reagent)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)

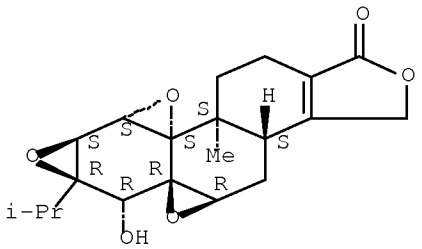
RN 38748-32-2 HCAPLUS
CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



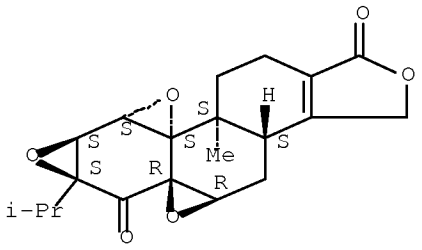
IT 864721-95-9P, 7α,8α-Epoxytriptolide
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)
RN 864721-95-9 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aR,5aR,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 864722-01-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of analogs of triptolide, 7,8-deoxytriptolide, 7α,8α-epoxytriptolide and related ketones)
RN 864722-01-0 HCAPLUS
CN Trioxireno[4b,5:6,7:8a,9]phenanthro[2,1-c]furan-1,6(3H,6aH)-dione, 3b,4,4a,7a,7b,8b,9,10-octahydro-8b-methyl-6a-(1-methylethyl)-, (3bS,4aR,5aR,6aS,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 23 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:244153 HCAPLUS Full-text
DOCUMENT NUMBER: 143:299691
TITLE: An autosomal genomic scan for loci linked to type 2 diabetes in northern Han Chinese
AUTHOR(S): Zhao, J. Y.; Xiong, M. M.; Huang, W.; Wang, H.; Zuo, J.; Wu, G. D.; Chen, Z.; Qiang, B. Q.; Zhang, M. L.; Chen, J. L.; Ding, W.; Yuan, W. T.; Xu, H. Y.; Jin, L.; Li, Y. X.; Sun, Q.; Liu, Q. Y.; Boerwinkle, E.; Fang, F. D.
CORPORATE SOURCE: Department of Biochemistry and Molecular Biology, Institute of Basic Medical Sciences, Chinese Academy of Medical Sciences, Beijing, 100005, Peop. Rep. China
SOURCE: Journal of Molecular Medicine (Heidelberg, Germany) (2005), 83(3), 209-215
CODEN: JMLME8; ISSN: 0946-2716
PUBLISHER: Springer GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We report the results of a genome-wide scan conducted in 219 individuals from 34 large multiplex nuclear pedigrees from the northern Han Chinese population at an average resolution of about 10 cM. Nonparametric two-point and multipoint linkage analyses were performed to detect evidence of linkage with type 2 diabetes in this study. On chromosome 1 four regions showed evidence of linkage with type 2 diabetes in northern Han Chinese. Of these regions a marker D1S193 (73 cM) showed evidence of linkage (two-point nonparametric linkage 2.409), and another region (around 190 cM) was a replication of several other studies performed in different ethnic populations. Evidences of linkage have been confirmed by typing addnl. markers (average distance 1-5 cM) flanking these two pos. regions on chromosome 1. We also found indication of linkage with type 2 diabetes on chromosomes 2, 10, 12, 18, 20, and 22 by two-point linkage analyses.
REFERENCE COUNT: 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 24 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:142039 HCAPLUS Full-text
DOCUMENT NUMBER: 142:309480
TITLE: Triptolide suppresses CD80 and CD86 expressions and IL-12 production in THP-1 cells
AUTHOR(S): Liu, Jing; Wu, Qing-li; Feng, Yong-hong; Yang, Yi-fu; Li, Xiao-yu; Zuo, Jian-ping
CORPORATE SOURCE: State Key Laboratory of Drug Research, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 201203, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2005), 26(2), 223-227
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Blackwell Publishing Asia Pty Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the effects of triptolide, a diterpenoid triepoxide from Tripterygium wilfordii Hook F (TWHF), on the co-stimulatory mol. expression and interleukin-12 (IL-12) production from THP-1 cells. THP-1 cells were differentiated into macrophage-like cells by Me2SO, and then cultured with

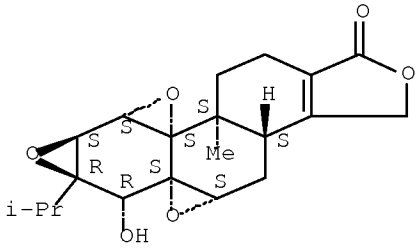
IFN-γ (500 kU/L) and lipopolysaccharide (LPS) (1 mg/L) with or without triptolide. The surface mol. expressions were analyzed on a FACScan flow cytometer. IL-12p40, IL-12p70 were assayed by ELISA. Tripolide suppressed CD80 and CD86 expressions on IFN-γ (500 kU/L) and LPS (1 mg/L) activated THP-1 cells at nontoxic dosages of 2.5-0.625 μg/L. Furthermore, the production of IL-12p40 and IL-12p70 were also significantly reduced in THP-1 cells exposed to triptolide. Triptolide impairs the antigen-presenting function by inhibiting CD80 and CD86 expressions and decreased IL-12p40 and IL-12p70 (bioactive form) productions from the activated THP-1 cells.

IT 38748-32-2, Triptolide
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(triptolide suppresses CD80 and CD86 expressions and IL-12 production in THP-1 cells)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 25 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:1645 HCAPLUS Full-text
DOCUMENT NUMBER: 143:63578
TITLE: Magnetoelastic nanocrystalline Co-Ni alloys
AUTHOR(S): Kong, H. Z.; Wee, A. T. S.; Ding, J.; Li, Y.; Liu, Y.
CORPORATE SOURCE: NUS Nanoscience and Nanotechnology Initiative, National University of Singapore, Singapore, 119260, Singapore
SOURCE: International Journal of Nanoscience (2004), 3(4 & 5), 615-623
CODEN: IJNNAJ; ISSN: 0219-581X
PUBLISHER: World Scientific Publishing Co. Pte. Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Magnetization of Co-Ni cast plates underwent an abrupt change at 32 atomic% Ni due to a phase transformation. The strain value for Co-32 atomic% Ni alloy cast plate increased from 54 to 850 με as temperature decreased to 150 K. Phase formation in the thin film is dependent on the deposition conditions.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 26 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2004:1103702 HCAPLUS Full-text
DOCUMENT NUMBER: 142:273394
TITLE: Anti-SARS virus action of natural marine substance: bryostatin
AUTHOR(S): Yi, Yanghua; Sun, Peng; Zuo, Jianping; Lin, Houwen; Li, Ling; Tang, Haifeng; Ding, Jian; Nan, Fajun
CORPORATE SOURCE: Research Center for Marine Drugs. School of Pharmacy, Second Military Medical University, Shanghai, 200433, Peop. Rep. China
SOURCE: Dier Junyi Daxue Xuebao (2003), 24(8), 821-822
CODEN: DJXUE5; ISSN: 0258-879X
PUBLISHER: Dier Junyi Daxue Xuebao Bianjibu
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

AB The anti-SARS virus effect of total bryostatins, a mixture of 9 bryostatins isolated from marine animal Bugula neritina were observed Vero-E6 cells were used as SARS virus host cells. Cytopathic effect (CPE) and cell protection rate (CPR) were used to determine the protective effects of total bryostatins against SARS virus. Bryostatins at 4, 20 and 100 μg/mL were tested sep. in 2 expts. In the prevention test, CPE were ++++, ++++, ++; CPR was 7%, 6%, 39%; in the treatment test, CPE were +++, ++, ++; CPR were 33%, 58%, 40%. Concentration over 4 μg/mL had anti-SARS activity and protection action for SARS-infected cell.

L29 ANSWER 27 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:337916 HCAPLUS Full-text
DOCUMENT NUMBER: 141:151902
TITLE: One hundred and one new microsatellite loci derived from ESTs (EST-SSRs) in bread wheat
AUTHOR(S): Gao, L. F.; Jing, R. L.; Huo, N. X.; Li, Y.; Li, X. P.; Zhou, R. H.; Chang, X. P.; Tang, J. F.; Ma, Z. Y.; Jia, J. Z.
CORPORATE SOURCE: Institute of Crop Germplasm Resources, Key Laboratory of Crop Germplasm and Biotechnology, Ministry of Agriculture, Chinese Academy of Agricultural Sciences, Beijing, 100081, Peop. Rep. China
SOURCE: Theoretical and Applied Genetics (2004), 108(7), 1392-1400
CODEN: THAGA6; ISSN: 0040-5752
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Four hundred and seventy-eight microsatellite markers derived from expressed sequence tags (EST-SSRs) were screened among three mapping populations (W-7984×Opata 85, WOpop; Lumai×Hanxuan, LHpop; Wenmai×Shanhongmai, WSpop). The number of polymorphic EST-SSR primer pairs found in WOpop, LHpop and WSpop was 92, 58 and 29 resp. A total of 101 EST-SSR loci amplified from 88 primer sets were distributed over the 20 chromosomes of the reference maps (no markers were located on chromosome 4B). These 101 mapped EST-SSR markers add to the existing 450 microsatellite loci previously mapped in bread wheat. Seventy-four of the 101 loci showed significant similarities to known genes, including 24 genes involved in metabolism, 4 in cellular structures, 9 in stress resistance, 12 in transcription, 2 in development, 2 transporters and 21 storage proteins. Besides gliadin and glutenin, most of the 53 genes with putative functions were mapped for the first time by EST-SSR markers in bread wheat. Sequence alignment of the mapped wheat EST-SSR loci allowed tentative assignment of functionality to the other members of grasses family.

Colinearity combined with homol. information offers an attractive approach to comparative genomics.
REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 28 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2004:297287 HCAPLUS Full-text
DOCUMENT NUMBER: 141:30665
TITLE: Low-threshold amplified spontaneous emission and laser emission in a polyfluorene derivative
AUTHOR(S): Liu, X.; Py, C.; Tao, Y.; Li, Y.; Ding, J.; Day, M.
CORPORATE SOURCE: Institute for Microstructural Sciences, National Research Council of Canada, K1A 0R6, Can.
SOURCE: Applied Physics Letters (2004), 84(15), 2727-2729
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The amplified spontaneous emission (ASE) and lasing properties of a fluorene copolymer PF3Cz film waveguide were studied under optical pumping. Low ASE and lasing threshold were observed at 59 W/cm2/pulse and 1.7 KW/cm2/pulse, resp. The stimulated emission cross section of the PF3Cz film is .apprx.1.6 × 10-16 cm2 at the ASE peak of 448 nm. The absorption cross section is 2.8 × 10-16 cm2 at the absorption peak λ = 370 nm. Gain and loss measurements at the ASE peak showed that the net gain coefficient reaches 26 ± 1.7 cm-1 when pumped at 1.4 KW/cm2, and the loss coefficient of the waveguide was .apprx.13 ± 1.1 cm-1.
REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 29 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2003:746041 HCAPLUS Full-text
DOCUMENT NUMBER: 139:359747
TITLE: Analysis of triptolide-regulated gene expression in Jurkat cells by complementary DNA microarray
AUTHOR(S): Du, Ze-Ying; Li, Xiao-Yu; Li, Yuan-Chao; Wang, Shun-You
CORPORATE SOURCE: Department of Pharmacology, Shanghai Institute of Materia Medica, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Acta Pharmacologica Sinica (2003), 24(9), 864-872
CODEN: APSCG5; ISSN: 1671-4083
PUBLISHER: Science Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB To investigate the global gene expression profile changes in Jurkat cells after triptolide treatment in order to find the possible triptolide targets. Jurkat cells were treated with or without triptolide 10 μg/L for 2 h. Total RNA were isolated and used as templates for reverse transcriptional labeling of fluorescent cDNA probes. High d. DNA microarray chips with a set of 13 872 human genes/Ests were used to generate the expression profile of triptolide-treated or untreated control Jurkat cells by hybridizing with fluorescent labeled probes. Array image was acquired and analyzed with array analyzing software GeneSpring. Triptolide significantly suppressed expression of 117 genes in Jurkat cells. Among these 117 genes, 30 % were Ests or genes without known functions, 13 % were transcription factors, 9 % were signal transduction

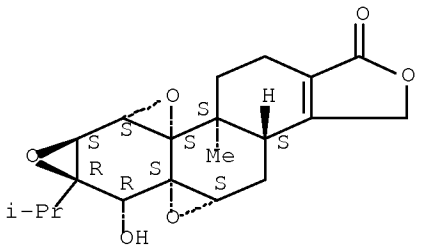
pathway regulators, and 9 % were DNA binding proteins. Notably, the expression of mitogen-activated protein kinase kinase kinase kinase 5 (MAP kinase 5) and phosphoinositide-3-kinase (PI-3 kinase) was inhibited more than 100-fold. Moreover, the expression of genes involved in lipid transportation and metabolism was down-regulated by triptolide. High-d. microarray provided an effective approach to identify drug targeting mols. It is suggested that the widely known immune suppressive and antitumor effects of triptolide were mediated at least in part by suppression of MAP kinase and PI-3 kinase gene expression.

IT 38748-32-2, Triptolide
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(anal. of triptolide-regulated gene expression in Jurkat cells by complementary DNA microarray)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 30 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:667742 HCAPLUS Full-text

DOCUMENT NUMBER: 140:138967

TITLE: The suppressive effect of triptolide on experimental autoimmune uveoretinitis by down-regulating Th1-type response

AUTHOR(S): Wu, Yadi; Wang, Yanping; Zhong, Cuiping; Li, Yuanchao; Li, Xiaoyu; Sun, Bing

CORPORATE SOURCE: Institute of Biochemistry and Cell Biology, The Laboratory of Molecular Immunology, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China

SOURCE: International Immunopharmacology (2003), 3(10-11), 1457-1465
CODEN: IINMBA; ISSN: 1567-5769

PUBLISHER: Elsevier Science B.V.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We investigated the suppressive effect of triptolide (TRD), a purified component from a traditional Chinese herb, Tripterygium wilfordii Hook F. (TWHf), on uveitogenic peptide (K2)-induced exptl. autoimmune uveoretinitis (EAU). K2-peptide immunized B10.A mice were divided into four groups. One group was EAU control which was treated with PBS. The other two groups were treated with TRD with different time courses (from day 0 to day 28 and from day 14 to day 28). The last group was treated with Cyclosporin A (CsA) as a

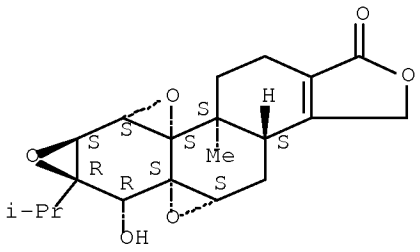
pos. control of the treatment. TRD was administered at dose of 0.1 mg/kg/day (i.p.). CsA was administered at dose of 20 mg/kg/day (i.p.) from day 0 to day 28 during whole period of EAU induction. The data showed that the EAU was suppressed in the whole period of TRD-treated mice, but was not in TRD-treated mice from day 14 to day 28 following immunization. The inhibition of EAU induced by TRD treatment was comparable to CsA-treated mice. The K2-specific lymphocyte proliferation and mRNA expressions of Th1-type cytokines (IL-12p40, IFN-γ and TNF-α) in draining lymph node and inflamed eyes were reduced in TRD-treated mice. The K2-specific IFN-γ production in the draining lymph node cells (LNC) of TRD-treated mice (whole period) was significantly inhibited. This effect was not related to an apoptotic effect of TRD on CD4+ T cells. Our results suggested that TRD suppressed the induction of EAU by down-regulating Th1-type response in B10.A mice. This preventive effect on EAU induction may be related to the inhibition of TRD on T cell priming and activation.

IT 38748-32-2, Triptolide
RL: FMU (Formation, unclassified); NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); OCCU (Occurrence); USES (Uses)
(suppressive effect of triptolide on exptl. autoimmune uveoretinitis by down-regulating Th1-type response)

RN 38748-32-2 HCAPLUS

CN Trisoxireno[4b,5:6,7:8a,9]phenanthro[1,2-c]furan-1(3H)-one, 3b,4,4a,6,6a,7a,7b,8b,9,10-decahydro-6-hydroxy-8b-methyl-6a-(1-methylethyl)-, (3bS,4aS,5aS,6R,6aR,7aS,7bS,8aS,8bS)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 31 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2003:446080 HCAPLUS Full-text

DOCUMENT NUMBER: 139:258984

TITLE: Diagnostic value of protein induced by vitamin K absence (PIVKAII) and hepatoma-specific band of serum gamma-glutamyl transferase (GGTII) as hepatocellular carcinoma markers complementary to α-fetoprotein

AUTHOR(S): Cui, R.; He, J.; Zhang, F.; Wang, B.; Ding, H.; Shen, H.; Li, Y.; Chen, X.

CORPORATE SOURCE: Beijing Friendship Hospital, Liver Research Center, Capital University of Medical Science, Beijing, 100050, Peop. Rep. China

SOURCE: British Journal of Cancer (2003), 88(12), 1878-1882
CODEN: BJCAAI; ISSN: 0007-0920

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Serum protein induced by vitamin K absence or antagonist II (PIVKAII), hepatoma-specific band of serum gamma-glutamyl transferase (GGTII), and α-fetoprotein (AFP) levels were determined in 120 patients with hepatocellular carcinoma (HCC) and 90 patients with cirrhosis. The mean serum concentration of PIVKAII in HCC patients was higher than that in cirrhotic patients. A total of 53.3% of patients (64 out of 120) with HCC had PIVKAII levels above 40 mAU ml-1. However, only 13 patients with cirrhosis had higher PIVKA II levels. Of 32 small HCC patients, 13 (40.6%) had PIVKAII values above 40 mAU ml-1. An increased concentration of AFP (i.e. 20 ng ml-1) was observed in 70 out of 120 (58.3%) patients with HCC and in 33 out of 90 (36.7%) patients with cirrhosis. Pos. GGTII was found in 74.0% (89 out of 120) cases of HCC (sensitivity), in 16 of 90 cases of cirrhosis, and 14 of 32 (43.8%) small HCC patients had GGTII pos. No significant correlation was found between serum levels of AFP and PIVKAII. Combining the information from PIVKAII, AFP, and GGTII significantly increases the sensitivity over AFP alone. PIVKAII and GGTII are useful tumor markers complementary to AFP for diagnosis of HCC.
REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 32 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:545905 HCAPLUS Full-text
DOCUMENT NUMBER: 137:272064
TITLE: Magnetic properties and magnetic entropy change of amorphous and crystalline GdNiAl ribbons
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Yao, B.; Tan, H.
CORPORATE SOURCE: Department of Materials Science, Faculty of Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Applied Physics A: Materials Science & Processing (2002), 75(4), 535-539
CODEN: APAMFC; ISSN: 0947-8396
PUBLISHER: Springer-Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structure and magnetic properties of amorphous melt-spun and subsequently crystallized GdNiAl ribbons were studied. An amorphous phase was formed after the quenching process by melt spinning with a copper wheel having a surface speed of 30 m/s. A hexagonal phase with lattice parameters a 7.023 and c 3.916 Å was formed in the GdNiAl ribbon after annealing above its crystallization temperature Magnetic entropy change was calculated directly from isothermal magnetic measurements. The results show that both the amorphous and annealed samples have a high magnetocaloric effect, indicating that these alloys can be considered as candidates for magnetic refrigeration applications.
REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 33 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:432843 HCAPLUS Full-text
DOCUMENT NUMBER: 137:271920
TITLE: A structural, magnetic and microwave study on mechanically milled Fe-based alloy powders
AUTHOR(S): Ding, J.; Shi, Y.; Chen, L. F.; Deng, C. R.; Fuh, S. H.; Li, Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore

SOURCE: Journal of Magnetism and Magnetic Materials (2002), 247(3), 249-256
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fe90M10 powders with M = Fe, Co, Ni, Si, Al, Gd, Dy, and Nd were prepared by mech. milling. Their structure and magnetic properties were investigated. Microwave measurements were performed on the mech. milled Fe90M10 powders. The results were compared with those of Cl Fe powders and coarse Fe powder. Fine nanocryst. Fe-based alloy powders prepared by mech. milling are promising for microwave applications.
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 34 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2002:331518 HCAPLUS Full-text
DOCUMENT NUMBER: 137:27178
TITLE: Observation of clusters in RE60Fe30Al10 alloys and the associated magnetic properties
AUTHOR(S): Kong, H. Z.; Ding, J.; Dong, Z. L.; Wang, L.; White, T.; Li, Y.
CORPORATE SOURCE: Materials Science Department, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics D: Applied Physics (2002), 35(5), 423-429
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Magnetic properties and microstructure of melt-spun ribbons of RE60Fe30Al10 alloys with RE = Nd, Sm, Dy, Gd and Y were studied. High coercivity values in the range of MA m-1 were observed at low temps. for amorphous ribbons. Presence of Fe-rich clusters and nanoscale rare-earth crystallites in the amorphous matrix in the ribbons were revealed by high-resolution TEM studies. The magnetic transition temps. were estimated exptl. and compared with fitting results based on the cluster ferromagnetism model. Possible mechanisms for the magnetic behavior observed due to the presence of Fe-rich magnetic clusters are discussed.
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 35 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:838334 HCAPLUS Full-text
DOCUMENT NUMBER: 136:176795
TITLE: Monte Carlo simulation of a cluster system with strong interaction and random anisotropy
AUTHOR(S): Wang, L.; Ding, J.; Kong, H. Z.; Li, Y.; Feng, Y. P.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Physical Review B: Condensed Matter and Materials Physics (2001), 64(21), 214410/1-214410/10
CODEN: PRBMDO; ISSN: 0163-1829
PUBLISHER: American Physical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The Monte-Carlo method is used to study magnetic properties of amorphous rare-earth (RE) and transition-metal alloys, based on a model in which the magnetic

units are magnetic clusters. Each cluster is assumed to possess a certain magnetic moment, which decreases with increasing temperature, and a Curie temperature Tccluster. A random distribution is assumed for the magnetic easy directions of the clusters. Monte-Carlo simulations were carried out to simulate magnetization curves after zero-field cooling and magnetic hysteresis loops at different temps. The simulation results showed the presence of two other critical temps. Tblock and Tcsystem below Tccluster. Here, Tblock is the blocking temperature due to the anisotropy energy of the clusters, while Tcsystem is the freezing temperature due to interactions between clusters. If Tcsystem is lower than Tblock, the system behaves as a normal superparamagnetic material, characterized by a relatively weak effect of cluster correlation and/or dipole interaction. If Tcsystem is higher than Tblock, as in the case of many amorphous rare-earth and transition-metal alloys, it is possible to have three magnetic states, depending on the temperature: ferromagnetism when T < Tcsystem, superparamagnetism with correlation when Tcsystem < T < Tccluster, and paramagnetism when T > Tccluster. The freezing due to cluster interactions is characterized by a significant increase of remanence, while high coercivity is obtained below Tblock. The simulation results are compared with exptl. measurements. The magnetic behaviors of amorphous rare-earth and transition-metal alloys are well described by the model.

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 36 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:589377 HCAPLUS Full-text
DOCUMENT NUMBER: 135:326325
TITLE: A model for magnetic ordering in inhomogeneous amorphous RE-Fe-Al alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2001), 226-230(Pt. 2), 1504-1506
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The magnetic measurements on amorphous RE60Fe30Al10 with RE = Nd and Y indicated the presence of clusters in amorphous rare earth (RE) and transition metal alloys. A model for magnetic ordering was proposed for the inhomogeneous amorphous ferromagnets. This model was based on Langevin function of small magnetic clusters with strong interactions. The strong interactions could result in ferromagnetic coupling of the clusters below its critical temperature (Tcsystem), therefore termed as cluster ferromagnetism. The magnetization curves of the samples could be well described with the cluster ferromagnetic model.

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 37 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:502286 HCAPLUS Full-text
DOCUMENT NUMBER: 135:344601
TITLE: Synthesis and cytotoxicity of artemisinin derivatives containing cyanoarylmethyl group
AUTHOR(S): Wu, J.-M.; Shan, F.; Wu, G.-S.; Li, Y.; Ding, J.; Xiao, D.; Han, J.-X.; Atassi, G.; Leonce, S.;

Caignard, D.-H.; Renard, P.
CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Shanghai Institute of Materia Medica, Department of Synthetic Chemistry, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: European Journal of Medicinal Chemistry (2001), 36(5), 469-479
CODEN: EJMCA5; ISSN: 0223-5234
PUBLISHER: Editions Scientifiques et Medicales Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 135:344601
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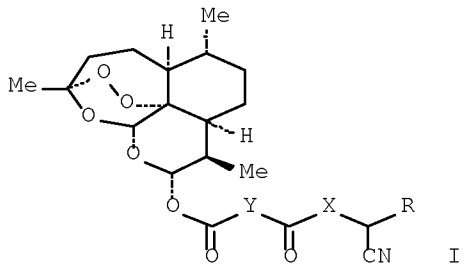

I

AB A series of 12α-deoxoartemisinyl cyanoarylmethyl dicarboxylates, dicarboxylic acids 12α-deoxoartemisinyl ester cyanoarylmethyl amide, and dicarboxylic acids 12α-deoxoartemisinyl ester N-methylcyanoarylmethyl amide, I (Y = (CH2)2, (CH2)4, (CH2)5, (CH2)7; X = O, NH, NMe) showing moderate cytotoxicity against P388 and L1210 cells were prepared They induced the significant accumulation of L1210 and P388 cells in the G1 phase of the cell cycle. This mechanism of action was quite different from that of the majority of cytotoxic compds. used in the chemotherapy of cancer. Compound I possessed better cytotoxicity than the other compds.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 38 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:436035 HCAPLUS Full-text
DOCUMENT NUMBER: 135:146024
TITLE: Bulk hard magnetic alloys in Nd-Fe-B system prepared by casting and melt spinning
AUTHOR(S): Kong, H. Z.; Ding, J.; Wang, L.; Li, Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Transactions (2001), 42(4), 674-677
CODEN: MTARCE; ISSN: 1345-9678
PUBLISHER: Japan Institute of Metals
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Cylindrical cast rods and melt-spun ribbons of Nd60Fe30B10 and two Nd67Fe26B7 and Nd10Fe73B17 eutectic alloys were prepared by copper mold casting and melt

spinning. Coercivity of the as-cast Nd60Fe30B10 rod was 434 kA/m. Coercivity of the cast rod was increased to 1285.6 kA/m after annealing due to the formation of Nd2Fe14B phase. The as-cast eutectic Nd67Fe26B7 rod, which is partially amorphous, exhibited coercivity value identical to that of the alloy Nd60Fe30B10 (.apprx.430 kA/m). However, eutectic Nd10Fe73B17 shows better glass forming ability, but lower coercivity (.apprx.100 kA/m).

REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 39 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:436033 HCAPLUS Full-text
DOCUMENT NUMBER: 135:145973
TITLE: Structure and magnetic properties of chill-cast and melt-spun Ndx(Fe3Al)100-x and Nd33(FeyAl)67 alloys
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Yao, B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Transactions (2001), 42(4), 664-669
CODEN: MTARCE; ISSN: 1345-9678
PUBLISHER: Japan Institute of Metals
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The magnetic properties of chill-cast Nd-Fe-Al rods were studied as a function of Nd and Al concns. High coercivities were obtained in Nd60(Fe3Al)40, Nd50(Fe3Al)50 and Nd33(Fe10Al)67 alloys. The study on the melt-spun ribbons of these alloys showed that coercivity is dependent on the quenching rate, and high coercivity could only be obtained in alloys prepared after a relatively low quenching rate. Several crystalline Nd-Fe-Al phases were studied. A metastable tetragonal phase existed as nearly the single phase in Nd33(FeyAl)67 with y = 2-4. The tetragonal phase is antiferromagnetic with a Neel temperature of 260 K. Metamagnetism and magnetoresistivity were observed The study on the annealed Nd33(FeAl)67 alloy showed that a hexagonal phase and an unknown were formed and these two Fe-containing phases, among which one is an antiferromagnetic with a Neel temperature of 280 K and the another is ferromagnetic <130-140 K.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 40 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:422390 HCAPLUS Full-text
DOCUMENT NUMBER: 135:131071
TITLE: Model of ferromagnetic clusters in amorphous rare earth and transition metal alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Applied Physics (2001), 89(12), 8046-8053
CODEN: JAPIAU; ISSN: 0021-8979
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Exptl. results on amorphous rare earth and transition metal alloys suggest Fe-rich clusters. A model is proposed in which the magnetic units are magnetic clusters. The magnetization of the clusters decreases with the increase of temperature In this model, there are 2 critical temps., Tcsystem and Tccluster. Tccluster is the Curie temperature of the magnetic clusters, which is also the Curie temperature of the sample. Tcsystem is the measurement of

the strength of interactions between clusters. Between Tccluster and Tcsystem, the system exhibits superparamagnetism with strong cluster interactions. The strong cluster interactions result in the ferromagnetic state below the critical temperature (Tcsystem), which is called a cluster ferromagnetism. The exptl. data (magnetization curves and susceptibility values of amorphous Y60Fe30Al10 and Nd60Fe30Al10 ribbons) support the cluster ferromagnetic model. The zero temperature coercivity and the relation between Tblock and Tcsystem are also discussed in this article.

REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 41 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:353754 HCAPLUS Full-text
DOCUMENT NUMBER: 135:115742
TITLE: Structure and magnetic properties of melt-spun Nd33(FexAl)67 alloys
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Materials Science Forum (2001), 360-362(Metastable, Mechanically Alloyed and Nanocrystalline Materials), 553-558
CODEN: MSFOEP; ISSN: 0255-5476
PUBLISHER: Trans Tech Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Structural and magnetic properties of melt-spun and annealed ribbons with the compns. Nd33(FexAl)67 (x = 1, 2, 3, and 4) were studied. XRD and DSC results show that an amorphous structure was formed during melt spinning with a wheel surface speed of 30 m/s. Several crystalline Nd-Fe-Al phases were found after annealing. A tetragonal phase with a = 9.778 and c = 11.516 Å was formed in the Nd33(FexAl)67 (x = 2, 3, and 4) alloys after melt-spinning and annealing at 873 K. This phase is antiferromagnetic with a Neel temperature of 260 K. Metamagnetism was observed at a temperature of 140 K or below. Annealing Nd33(FeAl)67 alloy show the formation of a hexagonal phase with lattice parameters a = 5.5111 and c = 8.7448 Å. The magnetic measurement show that the annealed sample exhibited a hard magnetic behavior at low temps. with a Curie temperature of 110 K and a Neel temperature of 260 K and a coercivity of 529 kA/m at 4.2 K. The magnetic entropy change was calculated from directly isothermal magnetic measurements. The results showed that the amorphous alloy had a relatively higher magnetocaloric effect than the annealed sample, indicating that it can be considered as a candidate for magnetic refrigeration applications.

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 42 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:277091 HCAPLUS Full-text
DOCUMENT NUMBER: 135:35822
TITLE: Electroless polyol synthesis and properties of nanostructured NixCo100-x films
AUTHOR(S): Chow, G. M.; Zhang, J.; Li, Y. Y.; Ding, J.; Goh, W. C.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, Kent Ridge, 117543, Singapore
SOURCE: Materials Science & Engineering, A: Structural Materials: Properties, Microstructure and Processing (2001), A304-306, 194-199

CODEN: MSAPE3; ISSN: 0921-5093
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A non-aqueous electroless polyol process was used to deposit nanostructured NixCo100-x films on Cu substrates by reducing nickel acetate and cobalt acetate in refluxing ethylene glycol at 194° for 1 h. The as-deposited films were characterized by using x-ray diffraction, SEM, vibrating specimen magnetometry, microhardness and microscratch tests. The films had a (111) texture, and the average crystallite size increased with increasing Ni content from 15 to 64 nm. The films showed in-plane magnetization anisotropy. The saturation magnetization increased with increasing Co concentration and reached 1421 emu/cm3 for Co. The perpendicular coercivity was higher than that in-plane coercivity. The Ni50Co50 film had the highest perpendicular coercivity and microhardness compared to other films having different compns. The critical load for delamination increased with Ni concentration and was independent of film thickness. In this polyol process, coating deposition on the substrate competed with undesirable powder precipitation in the solution Lowering the reaction temperature did not favor film deposition. However, film deposition occurred when an elec. field was applied during a reaction at temperature as low as 100°. Precipitation of colloidal particles persisted at this low temperature in a different diol.
REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 43 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:277012 HCAPLUS Full-text
DOCUMENT NUMBER: 134:328819
TITLE: Ultrafine NiO-La2O3-Al2O3 aerogel: a promising catalyst for CH4/CO2 reforming
AUTHOR(S): Xu, Z.; Li, Y.; Zhang, J.; Chang, L.; Zhou, R.; Duan, Z.
CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Applied Catalysis, A: General (2001), 213(1), 65-71
CODEN: ACAGE4; ISSN: 0926-860X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A newly designed ultrafine NiO-La2O3-Al2O3 aerogel catalyst has been successfully prepared by the combination of sol-gel method and supercrit. drying (SCD) technique for CH4/CO2 reforming. Compared to the conventional impregnated catalyst, it exhibits unusual phys. and chemical properties, as manifested in very large sp. surface area, well-defined pore size distribution and good textural stability. Very high activity and at the same time very low carbon deposition were also observed It more easily forms homogeneously distributed NiAl2O4 spinel in aerogel catalyst at low heat treatment temperature and has much higher capacity to adsorb CO2, which may be mainly responsible for its excellent catalytic performance and insensitive to carbon deposition.
REFERENCE COUNT: 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 44 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:254296 HCAPLUS Full-text
DOCUMENT NUMBER: 134:330020
TITLE: Magnetic hardening in amorphous alloy Sm60Fe30Al10
AUTHOR(S): Kong, H. Z.; Li, Y.; Ding, J.

CORPORATE SOURCE: Materials Science Department, National University of Singapore, 119260, Singapore
SOURCE: Scripta Materialia (2001), 44(5), 829-834
CODEN: SCMAF7; ISSN: 1359-6462
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The effects of Sm substitution for Nd on the microstructure and magnetic properties of melt-spun, hard magnetic amorphous Nd60Fe30Al10 were investigated to verify the effect of the inhomogeneous amorphous phase (or formation of clusters) on the magnetic properties of this compound Ribbons of Sm60Fe30Al10 melt-spun at low speeds (5 and 10 m/s) consisted of Sm phases and an amorphous matrix, while those melt-spun at high speeds (15 and 30 m/s) were fully amorphous. Room-temperature coercivity of all the melt-spun ribbons and a cast rod of Sm60Fe30Al10 were lower than that of alloy Nd60Fe30Al10. The ribbon melt-spun at a speed of 30 m/s exhibited superparamagnetic behavior at room temperature, probably caused by the presence of Fe-rich ferromagnetic clusters. Transition from superparamagnetic to the ferromagnetic state at .apprx.100 K was reflected in the sudden increase in the coercivity at .apprx.100 K and magnetic splitting of the Mossbauer spectrum. Intrinsic coercivity of the ribbon melt-spun at 30 m/s of alloy Sm60Fe30Al10 achieved a value as high as 3300 kA/m at 5 K.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 45 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:237208 HCAPLUS Full-text
DOCUMENT NUMBER: 135:157539
TITLE: PEGylated polycyanoacrylate nanoparticles as tumor necrosis factor-α carriers
AUTHOR(S): Li, Y. P.; Pei, Y.-Y.; Zhou, Z.-H.; Zhang, X.-Y.; Gu, Z.-H.; Ding, J.; Zhou, J.-J.; Gao, X.-J.
CORPORATE SOURCE: School of Pharmacy, Department of Pharmaceutics, Fudan University, Shanghai, 200032, Peop. Rep. China
SOURCE: Journal of Controlled Release (2001), 71(3), 287-296
CODEN: JCREEC; ISSN: 0168-3659
PUBLISHER: Elsevier Science Ireland Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The aim of this study was to find an effective carrier for recombinant human tumor necrosis factor-α (rHuTNF-α). The influence of solvent systems containing poly(methoxy polyethyleneglycol cyanoacrylate-co-n-hexadecyl cyanoacrylate) (PEGylated PHDCA) on the biol. activity of rHuTNF-α was investigated. The PEGylated PHDCA nanoparticles loading rHuTNF-α were prepared with the double emulsion method. The influence of main exptl. factors on the entrapment efficiency was evaluated by the Uniform Design. The physicochem. characteristics and in vitro release of rHuTNF-α from the nanoparticles were determined Serum albumin such as human serum albumin (HSA) or bovine serum albumin (BSA) could play a protective action on rHuTNF-α in the preparation process. At ≥2.0% HSA concentration, more than 85% of rHuTNF-α activity remained and the role of HSA was not affected by copolymer concns. 0.5-3.0%. The entrapment efficiency of the nanoparticles was about 60% and the nanoparticle size was about 150 nm. The nanoparticles were spherical in shape and uniform with the value of the zeta potential about -9 mV. The rHuTNF-α release from the nanoparticles showed an initial burst and then continued in a sustained fashion. The PEGylated PHDCA nanoparticles could be an effective carrier for rHuTNF-α.

REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 46 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:161103 HCAPLUS Full-text
DOCUMENT NUMBER: 134:289219
TITLE: A magnetic and Mossbauer study of melt-spun Nd60Fe30Al10
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Wang, X. Z.; Phuc, N. X.; Dan, N. H.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2001), 224(2), 143-152
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Nd60Fe30Al10 alloys were rapidly quenched by the melt-spinning technique with different wheel surface speeds ranging from 5-30 m/s. The microstructure and the magnetic properties were strongly dependent on the quenching rate. A high quenching rate led to an amorphous structure with a low coercivity at room temperature, while a mixture of amorphous and crystalline phases was found after melt-spinning at 5 m/s, which exhibited hard magnetic properties at room temperature For both the ribbons melt-spun at 5 and 30 m/s, resp., coercivity increased with decreasing temperature and reached a maximum at .apprx.50 K. Maximum magnetization at 10 T increased dramatically at low temperature The magnetic study showed that the presence of crystalline Nd was responsible for the increase of magnetization and the decrease of coercivity, as Nd became magnetically ordered at low temps. The Moessbauer study showed that the magnetic microstructures of melt-spun ribbons were not uniform, as the spectra needed to be fitted by magnetic and nonmagnetic components.
REFERENCE COUNT: 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 47 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:147103 HCAPLUS Full-text
DOCUMENT NUMBER: 134:375110
TITLE: Hard magnetic properties and magnetocaloric effect in amorphous NdFeAl ribbons
AUTHOR(S): Si, L.; Ding, J.; Wang, L.; Li, Y.; Tan, H.; Yao, B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Alloys and Compounds (2001), 316(1-2), 260-263
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Structure and magnetic properties of amorphous melt-spun NdFeAl and subsequently crystallized ribbons were studied. An amorphous phase was formed after quenching by melt spinning with a Cu wheel surface speed of 30 m/s. This amorphous phase exhibited hard magnetic behavior at low temps. with a Curie temperature of 110 K and a coercivity of 1526 kA/m at 4.2 K A hexagonal phase with the lattice parameters a = 5.5111 A and c 8.7448 A was formed in the NdFeAl ribbon after annealing above the crystallization temperature The magnetic entropy change was calculated directly from isothermal magnetic measurements. The results showed that the amorphous sample had a relatively

high magnetocaloric effect, indicating that the amorphous alloy can be considered as a candidate for magnetic refrigeration applications.
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 48 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:146928 HCAPLUS Full-text
DOCUMENT NUMBER: 134:254450
TITLE: Bound-state Ni species - a superior form in Ni-based catalyst for CH4/CO2 reforming
AUTHOR(S): Xu, Z.; Li, Y.; Zhang, J.; Chang, L.; Zhou, R.; Duan, Z.
CORPORATE SOURCE: Department of Chemical Engineering, Tsinghua University, Beijing, 100084, Peop. Rep. China
SOURCE: Applied Catalysis, A: General (2001), 210(1,2), 45-53
CODEN: ACAGE4; ISSN: 0926-860X
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of nickel loading, calcination temperature, support, and basic additives on Ni-based catalyst structure and reactivity for CH4 reforming with CO2 were investigated. The results show that the structure of the nickel active phase strongly depends on the interactions of the metal and the support, which are related to the support properties, the additives and the preparation conditions. "Free" Ni species can be formed when the interaction is weak and their mobility makes them easily deactivated by coking and sintering. The effect of strong metal-support interaction (SMSI effect) is different for various supports. The formation of solid solution of Ni-Mg-O2 and the blocking of TiOx by the partially reduced TiO2 can both decrease the availability of Ni active sites in Ni/MgO and Ni/TiO2. The spinel NiAl2O4 formed in Ni/γ-Al2O3 might be responsible for its high activity and resistance to coking and sintering because it can produce a highly dispersed active phase and a large active surface area as bound-state Ni species when the catalyst is prepared at high calcined temps. or with low nickel loading. The addition of La2O3 or MgO as alumina modifiers can also be beneficial for the performance of the Ni/γ-Al2O3 catalyst.
REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 49 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:44365 HCAPLUS Full-text
DOCUMENT NUMBER: 134:156709
TITLE: Microstructure and soft magnetic properties of nanocrystalline Fe-Si powders
AUTHOR(S): Ding, J.; Li, Y.; Chen, L. F.; Deng, C. R.; Shi, Y.; Chow, Y. S.; Gang, T. B.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, Singapore
SOURCE: Journal of Alloys and Compounds (2001), 314(1-2), 262-267
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Fine Fe-Si powders with a nanocryst. structure were prepared by mech. alloying (high-energy ball milling) and subsequent heat treatment (to optimize their magnetic properties). Good soft magnetic properties were obtained in mech. alloyed Fe-Si powders. The Fe75Si25 powder annealed at 450° possessed a

magnetization of 149 Am2/kg and a coercivity of 0.2 kA/m. The coercivity model for soft magnetic nanocryst. materials could be well applied to the Fe-Si powders. The mech. alloyed Fe-Si possessed significantly higher magnetic permeability than that of com. available Fe-Si powder. The permeability of the mech. alloyed Fe75Si25 powder was comparable with that of mech. alloyed pure Fe powder. Considering of lower d. and better chemical stability of Fe-Si, the mech. alloyed Fe-Si may be interesting for soft magnetic application including magnetic shielding and electromagnetic noise suppression.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 50 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2001:2585 HCAPLUS Full-text
DOCUMENT NUMBER: 134:140711
TITLE: Cluster-glass behaviour of the substituted molybdenum ferrite. A magnetic and Mossbauer study
AUTHOR(S): Wang, L.; Ding, J.; Roy, A.; Ghose, J.; Li, Y.; Feng, Y. P.
CORPORATE SOURCE: Physics Department, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (2000), 12(48), 9963-9972
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Magnetic and Mossbauer spectroscopy studies were carried out to investigate the ferrite Fe2Mo0.6Ti0.4O4. Zero-field-cooled (ZFC) and field-cooled (FC) data, hysteresis loops, coercivity measurements, Mossbauer anal. and magnetic relaxation measurements show the presence of a cluster-glass behavior. All of the results indicate that the ferrite may consist of 2 components: ferrimagnetic clusters and an antiferromagnetic matrix. The ferrimagnetic cluster may be Mo-rich and has a compensation temperature, and its Curie temperature is higher than that of the antiferromagnetic matrix.

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 51 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:872649 HCAPLUS Full-text
DOCUMENT NUMBER: 134:216798
TITLE: Novel antitumor artemisinin derivatives targeting G1 phase of the cell cycle
AUTHOR(S): Li, Y.; Shan, F.; Wu, J.-M.; Wu, G.-S.; Ding, J.; Xiao, D.; Yang, W.-Y.; Atassi, G.; Leonce, S.; Caignard, D.-H.; Renard, P.
CORPORATE SOURCE: Shanghai Institutes for Biological Sciences, Shanghai Institute of Materia Medica, Department of Synthetic Chemistry, Chinese Academy of Sciences, Shanghai, 200031, Peop. Rep. China
SOURCE: Bioorganic & Medicinal Chemistry Letters (2000), Volume Date 2001, 11(1), 5-8
CODEN: BMCLE8; ISSN: 0960-894X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Modification of artemisinin structure led us to the discovery of a novel class of antitumor compds. These artemisinin derivs. containing cyano and aryl groups showed potent antiproliferative effect in vitro against P388 and A549

cells. This activity was reflected in P388 murine leukemia by an accumulation of cells in G1 phase, and induction of apoptosis.
REFERENCE COUNT: 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 52 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:719663 HCAPLUS Full-text
DOCUMENT NUMBER: 134:179727
TITLE: The design, synthesis and characterization of polyurethane with super macromolecular size
AUTHOR(S): Li, F.; Zuo, J.; Song, D.; Li, Y.; Ding, L.; An, Y.; Wei, P.; Ma, J.-B.; He, B.
CORPORATE SOURCE: Department of Chemistry, Nankai University, Tianjin, 300071, Peop. Rep. China
SOURCE: European Polymer Journal (2000), Volume Date 2001, 37(1), 193-199
CODEN: EUPJAG; ISSN: 0014-3057
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB In the synthesis of polyurethane (PU), considering that -NCO at the chain end in the prepolymer can react with the hydrogen in -NHCOO-, a reaction system with a crosslinking tendency is designed. Due to the crosslinking tendency, mol. weight will increase without limit, while the intramol. reaction present in the system consumes -NCO groups and then the crosslinking reaction can be prevented. Thus, PU with extremely complex structures and super macromol. size is synthesized. When the mol. weight of the soft segment is 900, and the amount of chain extender is reduced by 40%, the mol. size is 750 nm. Compared with polystyrene, which, with a mol. weight of 2 × 106, has a mol. size only 96 nm, it is undoubtedly a super macromol. Elongation and tensile strength at break of this PU sample are 1683% and 28,000 N/cm2, resp. When the mol. weight of the soft segment is 1684, elongation and tensile strength at break are 2300% and 51,000 N/cm2, resp.
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 53 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:413562 HCAPLUS Full-text
DOCUMENT NUMBER: 133:171286
TITLE: Effect of boron addition to the hard magnetic bulk Nd60Fe30Al10 amorphous alloy
AUTHOR(S): Kong, H. Z.; Li, Y.; Ding, J.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (2000), 217(1-3), 65-73
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A detailed study of the effect of boron addition to crystallinity, magnetic properties and thermal properties was carried out for alloys Nd60-xFe30Al10Bx with x = 0, 1, 3 and 5 produced by copper mold chill casting and melt-spinning. The cast rods of alloys Nd60-xFe30Al10Bx were largely amorphous. Remanence up to 0.154 T and coercivity up to 355 kA/m were observed, which were higher than those of the bulk amorphous Nd60Fe30Al10 rod of the same diameter A step in hysteresis loop was observed for the hard magnetic cast rod and ribbon melt-spun at a low speed of 5 m/s of the alloys with boron

addition Consistent increase in the amplitude of the step and magnetic field (H) at which the step was observed as the boron content increased. A single magnetic phase with low coercivity was observed for fully amorphous ribbon melt-spun at high speed of 30 m/s. Full crystallization due to heat treatment resulted in transition of hard magnetic amorphous phase of Nd55Fe30Al10B5 cast rod to paramagnetic crystalline phases. TEM results of the as-cast rods illustrated the existence of numerous minute Nd-crystallites in amorphous matrix.

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 54 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:369004 HCAPLUS Full-text
DOCUMENT NUMBER: 133:98370
TITLE: A superferromagnetic approach for rapidly quenched Y60Fe30Al10 alloys
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Kong, H. Z.; Feng, Y. P.; Wang, X. Z.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (2000), 12(18), 4253-4262
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The structural and magnetic properties of Y60Fe30Al10 melt-spun ribbons were studied in this work. The exptl. results indicate that Y60Fe30Al10 melt-spun ribbons are not homogeneous, i.e. Fe-rich clusters are present. The magnetization curves for the ribbons melt spun at 5 and 30 m s-1 were analyzed with a model based on superferromagnetism. This superferromagnetic model can be well applied to the ribbon melt spun at 30 m s-1. The Curie transition temperature TCsystem was confirmed by the plot of inverse susceptibility vs. temperature For the ribbon melt spun at 5 m s-1, inter-cluster interactions were much stronger and the microstructure was not uniform. Zero-field cooling and field cooling curves showed the cluster behavior clearly. The Mossbauer results supported the existence of Fe-rich clusters and interactions between clusters.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 55 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:98714 HCAPLUS Full-text
DOCUMENT NUMBER: 132:245149
TITLE: The exchange-spring magnet behavior in melt-spun Nd-Fe-B ribbons
AUTHOR(S): Lee, K. Y.; Ding, J.; Li, Y.; Yong, P. T.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Brazilian Journal of Materials Science and Engineering (1999), 2(1), 5-17
CODEN: BJMEFH; ISSN: 1415-7004
PUBLISHER: Universidade Luterana do Brasil
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Demagnetization processes were studied in nanocryst. Nd-Fe-B ribbons of the three compns.: Nd10Fe85B5, Nd12Fe82B6 and Nd15Fe77B8. TEM bright field images showed that the microstructures of all the optimally annealed ribbons were

similar and grain size at 20-40 nm was obtained. Remanence enhancement was observed in the Nd10Fe85B5 nanocomposite consisting of soft (α-Fe) and hard (Nd2Fe14B) phases and in the single hard phase Nd12Fe82B6. In Nd15Fe77B8 ribbon, coercivity ≤1520 kA/m was measured, but no significant remanence enhancement was observed, due to the presence of .apprx.11 volume% of nonmagnetic phase (Nd1.1Fe4B4 and Nd-rich phase). The remanence enhanced single-phase Nd12Fe82B6 did not show any exchange-spring behavior. All samples of Nd10Fe85B5 exhibited single-phase behavior. This phenomenon was also observed in the sample annealed at 1000° where grain size as big as 1000 nm was measured. This single-phase behavior was due to the synchronization of the irreversible demagnetization processes of the soft and hard phases. No significant exchange-spring behavior was observed in Nd10Fe85B5 ribbons, except the sample annealed at 1000° where grain sizes were considerably larger than the domain wall thickness of Fe.

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 56 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2000:27201 HCAPLUS Full-text
DOCUMENT NUMBER: 132:174689
TITLE: A structural, magnetic and Mossbauer investigation on melt-spun Nd0.33(Fe0.75Al0.25)0.67 ribbons
AUTHOR(S): Si, L.; Ding, J.; Li, Y.; Wang, L.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (1999), 11(50), 10557-10566
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A tetragonal phase with a = 9.778 and c = 11.516 Å is formed in the Nd0.33(Fe0.75Al0.25)0.67 alloy after melt spinning and short period annealing at 873 K. The tetragonal phase is probably metastable and transforms slowly into the stable δ-Nd3Fe7-xAlx phase during heat treatment at 873 K. This phase is antiferromagnetic with a Neel temperature of 260 ± 5 K. Metamagnetism is observed at a temperature of 140 K or below. The magnetic properties were characterized using a vibrating sample magnetometer and Mossbauer spectroscopy. Magnetoresistivity of ≤7.2% is accompanied by metamagnetism. At room temperature, 1% of the magnetoresistivity is measured in the paramagnetic state.

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 57 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:720823 HCAPLUS Full-text
DOCUMENT NUMBER: 132:86887
TITLE: Observation of continuous and step-like thermomagnetization in Nd-Fe-Al amorphous alloys
AUTHOR(S): Phuc, N. X.; Dan, N. H.; Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Institute of Materials Science, Hanoi, Vietnam
SOURCE: IEEE Transactions on Magnetics (1999), 35(5, Pt. 2), 3460-3462
CODEN: IEMGAQ; ISSN: 0018-9464
PUBLISHER: Institute of Electrical and Electronics Engineers
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Zero field cooled and field cooled thermomagnetizations of melt-spun and chill-cast amorphous Nd60Fe30Al10 alloys were studied using regular and nonregular temperature cyclings. The regular temperature treatments revealed bifurcation of the two MZFC and MFC curves and a cusp-like behavior of the former appearing at temperature Tp and Tb, resp. These two temps. show up to scale well with external magnetic field. The magnetization of samples responds sensitively to any sudden change of the temperature and field variation.
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 58 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:682997 HCAPLUS Full-text
DOCUMENT NUMBER: 132:58086
TITLE: Anomalous magnetic viscosity in bulk-amorphous materials
AUTHOR(S): Wang, L.; Ding, J.; Li, Y.; Feng, Y. P.; Wang, X. Z.
CORPORATE SOURCE: Department of Physics, National University of Singapore, Singapore, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (1999), 206(3), 127-134
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The demagnetization processes and the magnetic viscosity were studied on a bulk-amorphous Nd60Fe30Al10 rod at room temperature Many unique magnetic properties were found in this novel hard magnetic material. A clear hysteresis was present on the minor loops, though the total and irreversible susceptibilities exhibited single-phase magnet behavior. A significant magnetic viscosity was evident at pos. fields. A large magnetic viscosity was found at neg. fields close to the coercivity. The time-dependent magnetization curves were not logarithm-linear and could be well fitted with a logarithm power series with N = 6. The fluctuation field was strongly dependent on the magnetic field. The activation volume is 15-60 × 10-18 cm3. The magnetic viscosity on the minor loops was measured. A nonmonotonic behavior was found.
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 59 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:615006 HCAPLUS Full-text
DOCUMENT NUMBER: 131:294572
TITLE: Structure and magnetic characterization of amorphous and crystalline Nd-Fe-Al alloys
AUTHOR(S): Wang, X. Z.; Li, Y.; Ding, J.; Si, L.; Kong, H. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Alloys and Compounds (1999), 290(1-2), 209-215
CODEN: JALCEU; ISSN: 0925-8388
PUBLISHER: Elsevier Science S.A.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Glass formation was studied in Nd60Fe30Al10 alloy produced by melt-spinning, water quenching and copper mold chill casting. Partially amorphous alloys were obtained by melt-spinning at low wheel speeds of 5 to 15 m/s and by water quenching of a 1-mm diameter rod, while fully amorphous alloys were obtained

by melt-spinning at higher wheel speeds of 20 and 30 m/s and chill casting of a 1-mm diameter rod, A high coercivity was observed in the partially amorphous ribbon melt-spun at 5 m/s and water quenched rod, and in the fully amorphous chill cast rod, while low values of coercivity were obtained in fully amorphous ribbons melt-spun at high speeds of 20 and 30 m/s. Crystallization of water quenched and chill cast samples after heat treatment at high temperature resulted in a substantial reduction of the high coercivity. Results of x-ray diffraction indicate that formation of Nd and a ternary Fe-Nd-Al phase with an unknown crystal structure were present after crystallization TEM results and a magnetic study of the heat treated samples indicate that as long as there is an amorphous phase produced by low cooling rate, the high coercivity remains. The high coercivity of bulk amorphous samples is discussed. The unknown ternary Fe-Nd-Al phase is antiferromagnetic with a Neel temperature at .apprx.260 K.

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 60 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:576383 HCAPLUS Full-text
DOCUMENT NUMBER: 131:316143
TITLE: Magnetoresistivity and metamagnetism of the Nd33Fe50Al17 alloy
AUTHOR(S): Ding, J.; Si, L.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, 119260, Singapore
SOURCE: Applied Physics Letters (1999), 75(12), 1763-1765
CODEN: APPLAB; ISSN: 0003-6951
PUBLISHER: American Institute of Physics
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A ternary phase was identified in the rare-earth transition metal Nd-Fe-Al system. This phase has a composition close to Nd5(Fe3Al)12 and is antiferromagnetic with a Neel temperature of .apprx.260 K; A clear step appears in magnetization curves of the isotropic ribbon at temps. <140 K, indicating metamagnetism. Magnetoresistivity (MR) was observed in this compound MR increases with decreasing temperature and is 7.2% at 4.2 K; This compound exhibits MR of 1% in the paramagnetic state at room temperature

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 61 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:522214 HCAPLUS Full-text
DOCUMENT NUMBER: 131:193068
TITLE: Magnetic properties of rapidly quenched RE-Fe-Al alloys with RE = Nd and Y
AUTHOR(S): Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Dep. Materials Science, National Univ. Singapore, Singapore, 119260, Singapore
SOURCE: Materials Science Forum (1999), 312-314(Metastable, Mechanically Alloyed and Nanocrystalline Materials), 539-544
CODEN: MSFOEP; ISSN: 0255-5476
PUBLISHER: Trans Tech Publications Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB RE-Fe-Al alloys with RE = Nd and Y were prepared by different techniques including melt-spinning, water-quenching, and suction casting. High coercivities were measured in Nd60Fe30Al10 alloys after quenching at

relatively low quenching rates. Ribbons melt-spun at higher speeds had low values of coercivity, probably due to structural nonuniformity. Y-Fe-Al ribbons were studied with a vibrating sample magnetometer and a Mossbauer spectrometer. Mossbauer parameters changed with varied wheel speeds of melt-spinning, indicating of change in microstructure.
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 62 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:286556 HCAPLUS Full-text
DOCUMENT NUMBER: 130:360373
TITLE: Structure and magnetic properties of Y60Fe30Al10 melt-spun ribbons
AUTHOR(S): Li, Y.; Ding, J.; Wang, X. Z.
CORPORATE SOURCE: Department Materials Science, National Univ. Singapore, Singapore, 119260, Singapore
SOURCE: Physica Status Solidi A: Applied Research (1999), 172(2), 461-468
CODEN: PSSABA; ISSN: 0031-8965
PUBLISHER: Wiley-VCH Verlag Berlin GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural and magnetic properties of Y60Fe30Al10 melt-spun ribbons were studied. Fully amorphous alloys were obtained after melt-spinning at higher speeds (>15 m/s). Ribbons melt-spun at lower speeds consisted of a mixture of amorphous and crystalline Y. The Y crystallites in the ribbon melt-spun at 5 m/s possessed a strong crystallog. texture. The crystallization of the amorphous phase gives a mixture of crystalline Y and a ternary Y-Fe-Al phase. By Mossbauer study, the quadrupole splitting and isomer shift of the amorphous phase increased with decreasing melt-spinning speed, indicating a possible change in microstructure. The magnetization curves of Y60Fe30Al10 ribbons could be described with superparamagnetism, suggesting that Fe-rich clusters might be present in the amorphous phase.
REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 63 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1999:227227 HCAPLUS Full-text
DOCUMENT NUMBER: 130:341436
TITLE: The coercivity of rapidly quenched Nd60Fe30Al10 alloys
AUTHOR(S): Ding, J.; Li, Y.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics D: Applied Physics (1999), 32(6), 713-716
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB High coercivities were obtained in partly amorphous Nd60Fe30Al10 ribbons that had been melt spun at 5 m/s and in a water-quenched rod, whereas low coercivities were obtained in fully amorphous ribbons that had been melt spun at high wheel speeds (>20 m/s). High coercivities were measured for the water-quenched and the chill-cast rods. This result indicates that the coercivity of the Nd-Fe-Al alloy is strongly dependent on the quenching rate. The magnetic properties of the water-quenched rod were studied as functions of temperature The coercivity increased from 318 kA m-1 at room temperature to 2085 kA m-1 at liquid nitrogen temperature The ribbon that had been melt spun

at 5 m/s possessed a coercivity of 3266 kA m-1 (4.1 T) at 78 K. Such high coercivities were attributed to a large local magnetic anisotropy which is probably produced by Nd atoms.
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 64 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:728006 HCAPLUS Full-text
DOCUMENT NUMBER: 130:9800
TITLE: A comparative study of melt-spun ribbons of Nd12Fe82B6 and Nd15Fe77B8
AUTHOR(S): Ding, J.; Li, Y.; Yong, P. T.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Physics D: Applied Physics (1998), 31(20), 2745-2750
CODEN: JPAPBE; ISSN: 0022-3727
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Isotropic single-phase materials can exhibit remanence enhancement due to exchange coupling between spins in grain boundary areas. Magnetic materials with remanence enhancement are required to have nanocryst. structures with grain sizes comparable to the domain-wall thickness. The presence of nonmagnetic phases may result in de-coupling of magnetic grains, therefore increasing coercivity but a decrease in remanence. The demagnetization processes of single-phase materials with enhanced remanence are different from those of nanocomposites consisting of hard and soft phases, in that no exchange-spring magnet behavior was observed for single-phase ribbons of Nd2Fe14B with a nanocryst. structure. A neg. deviation of the demagnetization remanence from the Wohlfarth model is due to exchange coupling.
REFERENCE COUNT: 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 65 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:706887 HCAPLUS Full-text
DOCUMENT NUMBER: 130:9811
TITLE: A magnetic study of melt-spun Nd10Fe85B5 ribbons
AUTHOR(S): Ding, J.; Li, Y.; Lee, K. Y.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, 119260, Singapore
SOURCE: Journal of Physics: Condensed Matter (1998), 10(40), 9081-9092
CODEN: JCOMEL; ISSN: 0953-8984
PUBLISHER: Institute of Physics Publishing
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The structural and magnetic properties of Nd10Fe85B5 ribbons produced by melt-spinning and subsequent annealing were studied. A mixture of Nd2Fe14B and 13 volume% of Fe was found in the ribbon melt-spun at 30 m s-1 and in samples subsequently annealed. 57Fe-Moessbauer spectroscopy was used for phase anal. and for study of remanence enhancement. Remanence enhancement was found in ribbons after optimized treatment, after which ribbons consisted of 20-30 nm grains of Nd2Fe14B and Fe phases. The remanence enhancement effect was attributed to both the soft and hard phases. Demagnetization processes were studied. All samples exhibited single-phase behavior, i.e. irreversible demagnetization processes of the hard and soft phases were synchronous even for samples consisting of sub-micron grains. No significant evidence of

exchange-spring magnet behavior was found for samples after optimum treatment. The exchange-spring magnet behavior was observed in samples annealed at higher temps., at which the mean grain sizes were significantly larger than the domain wall thickness of Fe. The magnetic properties of Nd10Fe85B5 ribbons in this work were associated with separation of soft Fe grains by Nd2Fe14B grains because of a low fraction of Fe.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 66 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:684134 HCAPLUS Full-text
DOCUMENT NUMBER: 129:349961
TITLE: SU(4) Theory for Spin Systems with Orbital Degeneracy
AUTHOR(S): Li, Y. Q.; Ma, Michael; Shi, D. N.; Zhang, F. C.
CORPORATE SOURCE: Department of Physics, University of Cincinnati, Cincinnati, OH, 45221, USA
SOURCE: Physical Review Letters (1998), 81(16), 3527-3530
CODEN: PRLTAO; ISSN: 0031-9007
PUBLISHER: American Physical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The isotropic limit of spin systems with orbital degeneracy has global SU(4) symmetry. On many 2-dimensional lattices, the ground state does not possess long-range order, which may explain the observed spin liquid properties of LiNiO2. In the SU(4) Neel-ordered state, spin-spin correlations can be antiferromagnetic between two neighboring sites with parallel magnetic moments.

REFERENCE COUNT: 39 THERE ARE 39 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 67 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:475486 HCAPLUS Full-text
DOCUMENT NUMBER: 129:210710
TITLE: Unusual magnetization anisotropy in amorphous Nd-Fe-Al ribbons
AUTHOR(S): Li, Y.; Ding, J.; Ng, S. C.; Wang, X. Z.
CORPORATE SOURCE: Department of Materials Science, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Magnetism and Magnetic Materials (1998), 187(3), L273-L277
CODEN: JMMMDC; ISSN: 0304-8853
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Nd60Fe30Al10 ribbons was prepared by chill-block melt-spinning with different wheel speeds from 5 to 30 m/s. Fully amorphous ribbons were obtained at wheel speeds of 25 and 30 m/s. These ribbons exhibited an unusually large anisotropy in magnetization. The effect of the magnetic anisotropy decreased with decreasing wheel speed, and nearly disappeared at the wheel speed of 5 m/s, at which the ribbon consisted of a mixture of a more stable Fe-rich amorphous phase and a crystalline Nd phase with a strong crystallog. texture.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L29 ANSWER 68 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1998:114008 HCAPLUS Full-text
DOCUMENT NUMBER: 128:197151
TITLE: Raman spectra study on Al-C60 interfacial interactions

AUTHOR(S): Li, Y. Q.; Xu, W. T.; Li, X.; Wang, Y.; Zuo, J.; Hou, J. G.
CORPORATE SOURCE: Center Fundamental Physics, Univ. Sci. Technol. China, Hefei, 230026, Peop. Rep. China
SOURCE: Dianzi Xianwei Xuebao (1997), 16(4), 491-492
CODEN: DXIXF4; ISSN: 1000-6281
PUBLISHER: Zhongguo Dianzi Xianweijing Xuehui
DOCUMENT TYPE: Journal
LANGUAGE: Chinese
AB In comparison with pure C60 films, many features of Raman spectra of Al-C60 coevapd. films, which were deposited on NaCl(001) substrates by vacuum sublimation method, were modified substantially due to Al-C60 interfacial interactions. The softening of Ag(2) mode can be attributed to the charge transfer between Al atoms and C60 cages at the interface. To account for all the features of the Raman spectra, a more complicated Al-C60 interfacial interaction model should be introduced.

L29 ANSWER 69 OF 69 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1997:698353 HCAPLUS Full-text
DOCUMENT NUMBER: 128:30819
TITLE: Molecular cloning, sequencing, functional analysis and expression in E. coli of major core protein gene (S3) of rice dwarf virus Chinese isolate
AUTHOR(S): Zhang, F.; Li, Y.; Liu, Y.; Chen, Z.
CORPORATE SOURCE: National Laboratory of Protein Engineering and Plant Genetic Engineering, College of Life Sciences, Peking University, Beijing, 100871, Peop. Rep. China
SOURCE: Acta Virologica (English Edition) (1997), 41(3), 161-168
CODEN: AVIRA2; ISSN: 0001-723X
PUBLISHER: Slovak Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The complete nucleotide sequence of major core protein gene (segment S3) of rice dwarf virus (RDV) Chinese isolate was determined after cDNA cloning from the viral genomic RNA. Sequence anal. showed that the cloned fragment is 3195 bp in length and contains a single open reading frame (ORF), encoding the major core protein (P3) which Mr of 114 K. The nucleotide and deduced amino acid sequences of S3 of this isolate share significant homol. (94.1% and 97%, resp.) with those of S3 of the Japanese isolate. At the amino acid level, P3 of RDV Chinese isolate shares significant homol. with P3 of rice gall dwarf virus (RGDV), significant regional homol. with the rotavirus VP4 protein which forms spikes on the virus particles and has been identified as a protein involved in the activation of the rotavirus penetration, and homol. with spheroidin of amsacta entomopoxvirus (SPH), which is the major protein of the occlusion body, with cIp-like ATP-dependent protease binding subunit and with ATP-dependent protease ATP-binding subunit. Amino acid sequence anal. also showed that P3 contains RNA-dependent RNA polymerase (RDRP) motif-like elements such as DXXXD, SGXXXXXXN, GDD and ENXXXY. These results may suggest that P3 is a multifunctional protein which plays very important roles in the virus structure formation, virus replication and penetration processes. The full length cDNA sequence of RDV S3 and a partial one which covers nt 1004-3195 were cloned into bacterial expression vector pTrcHisB for expression. The full length cDNA sequence failed to be expressed in E. coli, but the partial sequence was successfully expressed there as confirmed by the Western blot anal. Further anal. of RDV P3 is under way.
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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     FILE 'REGISTRY' ENTERED AT 17:35:37 ON 09 JUN 2008
L1             STR
L3           102 SEA SSS FUL L1
L5             STR
L6            16 SEA SUB=L3 SSS FUL L1 NOT L5

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L7            19 SEA ABB=ON  PLU=ON  L6
                 D STAT QUE L7
                 D IBIB ABS HITSTR L7 1-19

     FILE 'REGISTRY' ENTERED AT 17:54:40 ON 09 JUN 2008
L8            86 SEA ABB=ON  PLU=ON  L3 NOT L6

     FILE 'HCAPLUS' ENTERED AT 17:55:17 ON 09 JUN 2008
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L19         6486 SEA ABB=ON  PLU=ON  "LI YUANCHAO"/AU OR LI Y/AU OR LI Y ?/AU
                 OR LI YUAN/AU OR LI YUAN CHAO/AU
L20          288 SEA ABB=ON  PLU=ON  "ZUO JIANPING"/AU OR ZUO J/AU OR ZUO J
                 P?/AU OR ZUO JIAN/AU OR ZUO JIAN P?/AU OR ZUO JIANPING/AU
L21         1941 SEA ABB=ON  PLU=ON  "ZHANG FAN"/AU OR ZHANG FAN ?/AU OR ZHANG
                 F/AU OR ZHANG F ?/AU
L22          272 SEA ABB=ON  PLU=ON  "ZHOU RU"/AU OR ZHOU RU ?/AU OR ZHOU R/AU
                 OR ZHOU R ?/AU
L23         1302 SEA ABB=ON  PLU=ON  DING J/AU OR DING J ?/AU OR DING JIAN/AU
                 OR DING JIAN ?/AU
L24           65 SEA ABB=ON  PLU=ON  L19 AND (L20 OR L21 OR L22 OR L23)
L25           20 SEA ABB=ON  PLU=ON  L20 AND (L21 OR L22 OR L23)
L26            5 SEA ABB=ON  PLU=ON  L21 AND (L22 OR L23)
L27            2 SEA ABB=ON  PLU=ON  L22 AND L23
L28           10 SEA ABB=ON  PLU=ON  (L19 OR L20 OR L21 OR L22 OR L23) AND L9
L29           69 SEA ABB=ON  PLU=ON  (L24 OR L25 OR L26 OR L27 OR L28) NOT L7
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                 D IBIB ABS HITSTR L29 1-69


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     FILE REGISTRY
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